



# Electronic Digital Thermometer

## Series SolarTemp and DiTemp



## Electronic Digital Thermometer, series SolarTemp and DiTemp

# Fully electronic with no external power supply!

### The industrial thermometer of the future...

...is already available now from SIKA.  
The new SolarTemp and DiTemp series offers remarkable new features and performance characteristics for local indication of temperature. For the first time, consistent accuracy and freedom from maintenance for the entire lifespan of the product is thus combined in one instrument.

### Advantages that make all the difference

- No maintenance whatsoever required over the lifespan of the product through the use of a photovoltaic cell (for artificial light from 50 lux) or a lithium battery (service life approx. 10 years)
- Because these instruments do not have a mechanical measuring mechanism, they are extremely vibration-proof and wear-free
- Optionally available with analogue output or freely programmable switching contacts
- The integrated transducer saves space as well as acquisition and installation costs
- Easy to read display, both analogue and digital
- Intrinsically safe to RL 94/9/EG (ATEX) for zone 1/21

Mechanical thermometers for local indication of temperature are already available for the industrial sector. But although they manage without an external power supply, they have only an analogue display. These are filled with mercury or gas or supplied in the form of bimetal dial thermometers.

The extremely low energy consumption of electronic digital thermometers from SIKA makes them a completely new kind of instrument.

The SolarTemp uses a solar cell integrated into the display module as energy source and the instrument works reliably in artificial light levels of 50 lux or more. Since the statutory minimum light level for industrial operations is 100 lux, the SIKA SolarTemp can be used practically anywhere.

The DiTemp has a lithium battery as energy source that has a service life of around 10 years.

These instruments function without measuring liquids such as mercury, which also poses a risk to the health, so potential environmental pollution is effectively removed both during production and at disposal.

Remote-working thermometers are also available. These are considerably easier to install since routing a flexible electrical cable presents few problems compared to a rigid capillary tube. The sensor is connected to the display unit by a plug connector.

A front pane of hardened glass with FDA approval is available for food applications.



## Digital and analogue - accurate whichever the case!

### The measuring principle

Digital thermometers of the SolarTemp and DiTemp series work with a discrete-time process with one measurement cycle taking 3 seconds. The user can therefore read off the current temperature even in passing. A flashing activity symbol on the display indicates correct functioning of the instrument during the measurement cycle.

### The display unit

The SolarTemp and DiTemp have an easily readable LCD display.



Two different types of display are available:

- If you prefer an instrument with a purely digital display, the SolarTemp is the right choice for you. The 4 large digits of the numeric display are 27mm high, making it easy to read even at extended distances.
- The basic reasoning behind the design of the dual display unit was to give it the appearance of a traditional dial instrument. We achieved this with a circular arrangement of LCD elements. This quasi-analogue format enables you to interpret the reading as instantly as a conventional dial instrument. However, a 4-digit, 7-segment display is additionally incorporated for times when you want to know the exact temperature.

The resolution of the digital display is 0.1 K irrespective of the measuring range.

### Mechanical construction

Instruments of the SolarTemp and DiTemp series have a robust mechanical assembly and are designed for both industrial applications and use in harsh environmental conditions. The IP 65 protection level ensures these requirements are met. The immunity to electromagnetic interference satisfies the requirements of the current industrial standards (CE conformity).

### Continuous self-test

After switch-on, the instrument performs an internal self-test that includes a check of the connected sensor. Automatic diagnostic routines continuously monitor the sensor signal and a broken sensor is indicated via the display unit.

The microprocessor constantly tests the sensor signal for plausibility. In the event of a fault, the results are indicated on the display as an error code.

## Additional functionality

### Integrated measurement transducer

Integration of the measurement transducer into the local display unit means the space requirement is substantially reduced along with acquisition and installation costs, since a complete measuring point is saved.

The measurement transducer system is independent of the local display unit, providing you with a redundant measuring system. The instrument is supplied via the transmitter, so there is no load on the battery or solar cell unless the current loop fails. This means the local display is both reliable and independent.

### Freely programmable switching contact

The absence of mechanical contacts makes the thermometer fail-safe and prevents unwanted switching operations through vibration, for example. In addition to the programmable alarm contact, the instrument has a signalling contact that indicates all faulty operating states such as broken sensor or battery charge level. The contacts are designed as normally open contacts.

Programming is performed without touching the instrument and is menu assisted. All operating states are monitored by the electronics. In contrast to mechanical instruments, the user has the benefit of a measuring system that is significantly more reliable and stable over the long term.

## Digital thermometer SolarTemp, series 811/ 812

for local temperature indication

Ranges:	-40 to +300 °C
Ambient temperature:	-20 °C to +60 °C (case)
Case:	Square, 98 x 98 mm Stainless steel 1.4301, frame nickel plated
Power supply:	Solar cell
Light density:	Min. 50 Lux
Cycle time:	3 s
Digital display:	4 digit 7 segment display, 27 mm high
Protection level:	IP 65
Accuracy:	≤1% of full range

Type 811



Type 812



Ordering code (e.g.)	811	48	100	9	2	2	2	0	0	0	0
Thermometer type:											
Vertical	811										
Axial	812										
Range:											
-40 +80 °C		48									
0 +200 °C		20									
0 +300 °C		30									
Max. immersion tube length L1:											
100 mm <sup>1)</sup>			100								
160 mm			160								
250 mm			250								
400 mm			400								
Immersion tube type:											
Plain without thread				1							
Union nut				4							
Coupling				9							
Thread type:											
None					0						
Coupling with male thread					2						
Coupling with female thread					3						
Fixed thread connection					4						
Thread type dg:											
None						0					
G ½						2					
G ¾						3					
M18x1,5						6					
M20x1,5						7					
M24x1,5						8					
M27x2						9					
Material of tube and clamp coupling:											
Stainless steel 1.4571 / no coupling							1				
Stainless steel 1.4571 / coupling zinc plated gold passivated							2				
Stainless steel 1.4571 / coupling stainless steel 1.4571							3				
Immersion tube diameter:											
Diameter d2 = 8 mm								0			
Diameter d2 = 6 mm								1			
Connecting cable:											
None									0		
Version:											
Standard										0	
Ex-version										1	
FDA-version (food)										2	
Transmitter output 4-20 mA										3	
Transmitter output 4-20 mA, Ex-version										4	0

<sup>1)</sup> not suited for 300 °C

Other length, ranges and dimensions on request

Technical changes reserved

## Digital thermometer DiTemp, series 901/902

for local temperature indication



Ranges:	-40 to +300 °C
Ambient temperature:	-20 °C to +60 °C (case)
Case:	ø 80 mm Bajonet case and bezel, stainless steel 1.4301
Power supply:	Lithium battery
Service life:	approx. 10 years
Cycle time:	3 s
Dual display	
• analogue:	bar graph 61 divisions
• digital	4 digit, 7 segment display, 11 mm high
Protection level:	IP 65
Accuracy:	≤1% of full range

Ordering code (e.g.)	901	48	100	9	2	2	2	0	0	0	0
Thermometer type:											
Vertical	901										
Axial	902										
Range:											
-40 +80 °C		48									
0 +120 °C		12									
0 +200 °C		20									
0 +300 °C		30									
Max. immersion tube length L1:											
100 mm <sup>1)</sup>			100								
160 mm			160								
250 mm			250								
400 mm			400								
Immersion tube type:											
Plain without thread				1							
Union nut				4							
Coupling				9							
Thread type:											
None					0						
Coupling with male thread					2						
Coupling with female thread					3						
Fixed thread connection					4						
Thread type dg:											
None						0					
G ½						2					
G ¾						3					
M18x1,5						6					
M20x1,5						7					
M24x1,5						8					
M 27x2						9					
Material of tube and clamp coupling:											
Stainless steel 1.4571 / no coupling								1			
Stainless steel 1.4571 / coupling zinc plated gold passivated								2			
Stainless steel 1.4571 / coupling stainless steel 1.4571								3			
Immersion tube diameter:											
Diameter d2 = 8 mm									0		
Diameter d2 = 6 mm									1		
Connecting cable:											
None										0	
Version:											
Standard											0
Ex-version											1
FDA-version (food)											2
Transmitter output 4-20 mA											3
Transmitter output 4-20 mA, Ex-version											4
Alarm contact											5
Alarm contact, Ex-version											6
Transmitter output 0-10 V											7
											0

Type 901



Type 902



<sup>1)</sup> not suited for 300 °C

Other length, ranges and dimensions on request

Technical changes reserved

## Digital thermometer SolarTemp, series 840, with wall mounting bracket

SolarTemp with large display for remote reading thermometer

Ranges:	-40 to +650 °C
Ambient temperature:	-20 °C to +60 °C (case)
Case:	Square, 98 x 98 mm Stainless steel 1.4301, frame nickel plated
Power supply:	Solar cell
Light density:	Min. 50 Lux
Cycle time:	3 s
Digital display:	4 digit 7 segment display, 27 mm high
Protection level:	IP 65
Accuracy:	≤1% of full range

Type 840



Ordering code (e.g.)	840	48	P54
Thermometer type: with wall mounting bracket	840		
Range:			
-40 +80 °C		48	
0 +200 °C		20	
0 +300 °C		30	
0 +650 °C		65	
Version:			
Standard			P54
Ex-version			P54 1
FDA-version (food)			P54 2
Transmitter output 4-20 mA			P53 3
Transmitter output 4-20 mA, Ex-version			P53 4
Plug connection of the interface <sup>1)</sup> :			
Elbow plug connector acc. DIN 175301-803 (standard)			

<sup>1)</sup> Also with plug connector M12 on request

Other length, ranges and dimensions on request

For ATEX-version a length of max. 10 m will be permissible.

Technical changes reserved

## Digital thermometer DiTemp, series 910- 930,

DiTemp bar graph display for remote reading thermometer

Ranges:	-40 to +650 °C
Ambient temperature:	-20 °C to +60 °C (case)
Case:	ø 80 mm Bajonet case and bezel, stainless steel 1.4301
Power supply:	Lithium battery
Service life:	approx. 10 years
Cycle time:	3 s
Dual display	
• analogue:	bar graph 61 divisions
• digital	4digit, 7 segment display, 11 mm high
Protection level:	IP 65
Accuracy:	≤1% of full range

**SIKA**®  
founded 1901  
Dr. Siebert & Kühn GmbH & Co. KG

Ordering code (e.g.)	910	48	P54	
Thermometer type:				
with wall mounting bracket	910			
with rear flange	920			
with front flange	930			
Range:				
-40 +80 °C		48		
0 +120 °C		12		
0 +200 °C		20		
0 +300 °C		30		
0 +650 °C		65		
Version:				
Standard			P54	
Ex-version			P54 1	
FDA-version (food)			P54 2	
Transmitter output 4-20 mA <sup>1)</sup>			P53 3	
Transmitter output 4-20 mA, Ex-version <sup>1)</sup>			P53 4	
Switching contact <sup>1)</sup>			P54 5	
Switching contact, Ex-version <sup>1)</sup>			P54 6	
Transmitter output 0-10 V <sup>1)</sup>			P53 7	
Plug connection of the interface <sup>2)</sup> :				
Elbow plug connector acc. DIN 175301-803 (standard)				

<sup>1)</sup> only Type 910 and 930

<sup>2)</sup> Also with plug connector M12 on request

Other length, ranges and dimensions on request

For ATEX-version a length of max. 10 m will be permissible.

Technical changes reserved

Type 920



Type 930



## Industrial standard temperature sensors for SolarTemp and DiTemp series

Sensor type: standard temperature sensor  
without interchangeable measuring insert

Accuracy: class B

Max. temperature: 200 °C/600 °C

Cable connecting: plug connector M12 for SolarTemp / DiTemp

Temperature sensor



Temperature sensor with lead outlet 90°



Ordering code (e.g.)	W	03	4	P54	050	0	3	8	J	01
Sensor type: Resistance thermometer	W									
Diameter:										
3 mm		03								
6 mm		06								
8 mm		08								
10 mm		10								
Material:										
Stainless steel 1.4571 (up to 400°C)				3						
Inconel (high temp. version Tmax. 600 °C)				4						
Sensor element:										
1 x Pt 1000/2-wire				P54						
2 x Pt 1000/2-wire (transmitter)				P53						
1 x Pt 1000/2-wire high temperature <sup>1)</sup>				H54						
2 x Pt 1000/2-wire high temperature (transmitter) <sup>1)</sup>				H53						
Nominal length NL (fitting length L1 = NL - 35 mm):										
85 mm <sup>2)</sup>					085					
135 mm <sup>2)</sup>					135					
195 mm					195					
285 mm					285					
435 mm					435					
Special length on request										
Version:										
Without interchangeable measuring insert						0				
Electrical connection:										
Elbow plug connector round with cable molded lead (only FEP)							3			
Connecting cable:										
Teflon (FEP) screened (Tmax. 220 °C)								8		
Mechanical connection:										
Union nut G <sup>3</sup> / <sub>4</sub>									3	
Clamp coupling G1/4A									I	
Clamp coupling G1/2A									J	
Clamp coupling G3/8									V	
Clamp coupling M10x1									D	
Screw on coupling G1/2									2	
Screw on coupling M24x1,5									8	
Solid thread M27x2									9	
Solid thread G1/2									2	
Solid thread M20x1,5									N	
None									0	
Cable length:										
2 m										03
3 m										05
5 m										09

<sup>1)</sup> Tmax >200 °C

<sup>2)</sup> not for high temperature version

Other length and versions on request

Technical changes reserved



## Cable temperature sensor

Sensor type: cable temperature sensor  
 with stainless steel casing  
 Accuracy: class B  
 Max. temperature: 200 °C  
 Cable connecting: plug connector M12 for SolarTemp / DiTemp  
 Protection level: IP 54

Ordering code (e.g.)	W	06	3	P54	040	0	3	8	J	01
Sensor type: Resistance thermometer	W									
Diameter: 6 mm (without interchangeable measuring insert)		06								
Material: Stainless steel 1.4571			3							
Sensor element: 1 x Pt 1000/2-wire 2 x Pt 1000/2-wire (transmitter)				P54 P53						
Fitting length NL: 40 mm 60 mm					040 060					
Version: Without interchangeable measuring insert						0				
Electrical connection: Plug connector M12							3			
Connecting cable <sup>1)</sup> : Teflon (FEP) screened (Tmax. 220 °C)								8		
Mechanical connection: None Clamp coupling G1/4A Clamp coupling M10x1									0 I D	
Cable length: 1 m 1,5 m 2 m 2,5 m 3 m										01 02 03 04 05

Cable temperature sensor



<sup>1)</sup> Other cable on request

Other length and versions on request

Technical changes reserved

**Immersion tube to screw in for industrial standard temperature sensors  
acc. DIN 43772 Form 5 and Form 6**

Immersion tube



Ordering code (e.g.)	ES	EA	D06	8	082	0	04	8
Immersion tube	ES							
Type:								
Welded		F5						
Massive material		F6						
Diameter F1/F2:								
6 mm			D06					
9 mm			D09					
11 mm			D11					
14 mm			D14					
Material:								
Stainless steel 1.4571				3				
Steel 1.0718				8				
Other				0				
Fitting length U1:								
82 mm					082			
142 mm					142			
232 mm					232			
382 mm					382			
Process connection E:								
M14x1,5						G		
M20x1,5						N		
M27x2						H		
M12x1						R		
G1/4A						L		
G1/2A						2		
G3/4A						3		
M24x2						5		
Clamp coupling G1/2A						J		
Other						X		
None						0		
Inner diameter d1:								
4 mm							04	
7 mm							07	
9 mm							09	
Sensor connecting thread N:								
G1/2								2
M20x1,5								N
G3/4								3
M27x2								H

Other length and versions on request

Technical changes reserved

## Highly stressable temperature sensors with immersion tube for SolarTemp / DiTemp



Sensor type: exhaust temperature sensor  
vibration-free  
Accuracy: class B  
Max. temperature: 600 °C  
Cable connecting: plug connector M12  
Protection level: IP 54

Ordering code (e.g.)	W	14	3	P54	040	0	3	8	J	01
Sensor type: Resistance thermometer	W									
Immersion tube diameter:										
12 to 9 mm reduced		09								
17/14 mm tapered up to 160 mm <sup>1)</sup>		14								
23/17 mm tapered up to 160 mm <sup>1)2)</sup>		17								
23/20 mm tapered from 200 mm <sup>2)</sup>		20								
Material:										
Stainless steel 1.4571 (up to 400 °C)			3							
Stainless steel 1.4713 (up to 650 °C)			9							
Sensor element:										
1 x Pt 1000/2-wire				P54						
2 x Pt 1000/2-wire (transmitter)				P53						
Fitting length L1:										
100 mm					100					
160 mm					150					
200 mm					200					
Special length on request					000					
Version:										
without extension tube						2				
with extension tube						1				
Electrical connection:										
Cable connecting with plug connector M12							3			
Connecting cable:										
Teflon (FEP) screened (Tmax. 220 °C)								8		
Mechanical connection:										
Clamp coupling G½A (only 12 to 9 mm)									J	
Union nut M24x1,5 (only 12 to 9 mm)									W	
Union nut M27x2 (only 12 to 9 mm)									U	
Solid thread G½A									2	
Solid thread G¾A									3	
Solid thread M27x2									H	
Solid thread M33x2									F	
None									0	
Cable length:										
1 m										01
3 m										05
5 m										09
10 m										19

Sensor with cable connecting



<sup>1)</sup> to Fitting length <200 mm

<sup>2)</sup> not for thread G½A

Other length and versions on request

Technical changes reserved

# Display with integrated measurement transformer

- The integration of the measurement transformer into the on-site display reduces significantly the space required as well as your purchase and installation costs.
- The measurement transformer function is an on-site display independent system, so that you have a redundant measurement system.



Integrated two-wire measurement transformer	
Temperature measurement range	-60 °C...+650 °C
Measurement input	Pt 1000, 2-leads, class B
Transmission behaviour	linear to DIN IEC 751
Linearity deviation	< 0,1 % FS
Loop voltage	12...24 V DC + -10 %, reverse polarity protected
Output signal	4...20 mA
Working resistance	$R_a = (U_b - 10 \text{ V}) / 20 \text{ mA}$
Sensor break	> 21 mA (NAMUR NE43)
Short circuit	< 3,6 mA (NAMUR NE43)
EMV	EN 61326 (03-2002)
Electrical connection	Instrument plug for cable connection acc. DIN EN 175301-803-A, screwed cable gland for $d = 6,5\text{--}13 \text{ mm}$ , cable cross section up to $A = 1,5 \text{ mm}^2$
Ex-version	Signal circuit in ignition protected type: intrinsic safety EEx ia IIC. Only for connection to a certified intrinsically safe circuit. Max. value: $U_i = 26.4 \text{ V}$

Physikalisch-Technische Bundesanstalt  
Braunschweig und Berlin

**EC-TYPE-EXAMINATION CERTIFICATE**  
(Translation)

(1) EC-type-examination Certificate Number: **PTB 05 ATEX 2036**

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - Directive 94/9/EC

(3) Manufacturer: **SIKA Dr. Siebert & Kühn GmbH**  
Address: **Struthweg 7 - 9, 34260 Kaufungen, Germany**

(4) Equipment: **Electronic digital thermometer, type series SIKA-SolarTemp... and SIKA-DiTemp...**

(5) Marking: **Ex**

(6) The equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(7) The Physikalisch-Technische Bundesanstalt, notified body No. 2122 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex I to the Directive.

(8) The examination and test results are recorded in the certificate report PTB Ex 05-2036E.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with **EN 50014:1997 + A1 + A2** and **prEN 61241-11:2004**

(10) If the sign "E" is placed after the certificate number, it indicates that the equipment is subject to special measures for safe use specified in the schedule to this certificate.

(11) The EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and assembly of this equipment. These are not covered by the certificate.

(12) The marking of the equipment shall include the following:

**II 2 G EEx ia IIC T8 or EEx ia IIC T3  
Ex ia IIP80 T1125 °C**

Zertifizierungsstelle  
By order: **Dr.-Ing. U. Jahn**  
Director and Professor

Braunschweig, November 15, 2005

sheet 1/3

EC-type-examination Certificates without signature and official stamp shall not be used. The certificate may be consulted only when electronic records or databases are added or approved by the Physikalisch-Technische Bundesanstalt in case of doubts, the Director and their proxy.

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Physikalisch-Technische Bundesanstalt  
Braunschweig und Berlin

**SCHEDULE**  
EC-TYPE-EXAMINATION CERTIFICATE PTB 05 ATEX 2036

1. Description of equipment

Electronic digital thermometers, type series SIKA-SolarTemp... and SIKA-DiTemp... are used to detect and display temperatures in the hazardous area. They can be equipped optionally with a remote transmitter, an integrated measuring transformer output of 4...20 mA, as well as a two-channel alarm output.

The marking of the electronic digital thermometers shall be taken from the following table:

Equipment	Marking
SIKA-DiTemp...	Type: 800 1234567 2C4 II 2 G EEx ia IIC T3 II 2 D EEx ia IIP80 T125 °C
	Type: 800 1234567 3C3 II 2 G EEx ia IIC T3 II 2 D EEx ia IIP80 T90 °C
	Type: 800 1234567 2C4 II 2 G EEx ia IIC T3 II 2 D EEx ia IIP80 T125 °C
	Type: 800 1234567 1A4 II 2 G EEx ia IIC T3 II 2 D EEx ia IIP80 T125 °C

2. Technical data

Type series SIKA-SolarTemp... all types  
by means of a built-in photoelement and

Type series SIKA-DiTemp... all types  
by means of lithium batteries  
Manufacturer Panasonic, type BR-235A, U = 3 V  
Manufacturer SAFT, type LS145000, U = 3.6 V

sheet 2/3

EC-type-examination Certificates without signature and official stamp shall not be used. The certificate may be consulted only when electronic records or databases are added or approved by the Physikalisch-Technische Bundesanstalt in case of doubts, the Director and their proxy.

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**SCHEDULE TO EC-TYPE-EXAMINATION CERTIFICATE PTB 05 ATEX 2036**

Measuring circuit: Type series SIKA-SolarTemp... all types  
Type series SIKA-DiTemp... all types  
Option remote transmitter  
type of protection intrinsic safety EEx ia IIC  
only for connection to the associated measuring sensors with a maximum line length of 50 m

Signal circuit: Type series SIKA-SolarTemp... type: 800 1234567 2C4  
Type series SIKA-DiTemp... type: 800 1234567 2C4  
Option integrated measuring transformer output, 4...20 mA  
type of protection intrinsic safety EEx ia IIC  
Only for connection to a certified intrinsically safe circuit.  
Maximum value:  $U_i = 26.4 \text{ V}$

Signal circuit: Type series SIKA-DiTemp... type: 800 1234567 3C3  
Option two-channel alarm output  
type of protection intrinsic safety EEx ia IIC  
Only for connection to a certified intrinsically safe circuit.  
Maximum value:  $U_i = 26.4 \text{ V}$   
 $I_i = 100 \text{ mA}$

Test report: PTB Ex 05-2036E

Special conditions for safe use: none

Essential health and safety requirements met by compliance with the standards mentioned above.

Zertifizierungsstelle  
By order: **Dr.-Ing. U. Jahn**  
Director and Professor

Braunschweig, November 15, 2005

sheet 3/3

EC-type-examination Certificates without signature and official stamp shall not be used. The certificate may be consulted only when electronic records or databases are added or approved by the Physikalisch-Technische Bundesanstalt in case of doubts, the Director and their proxy.

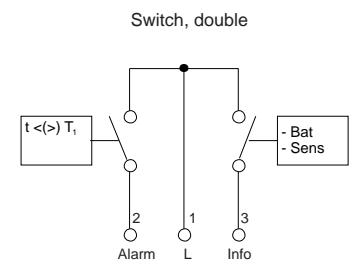
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## Electronic temperature switch



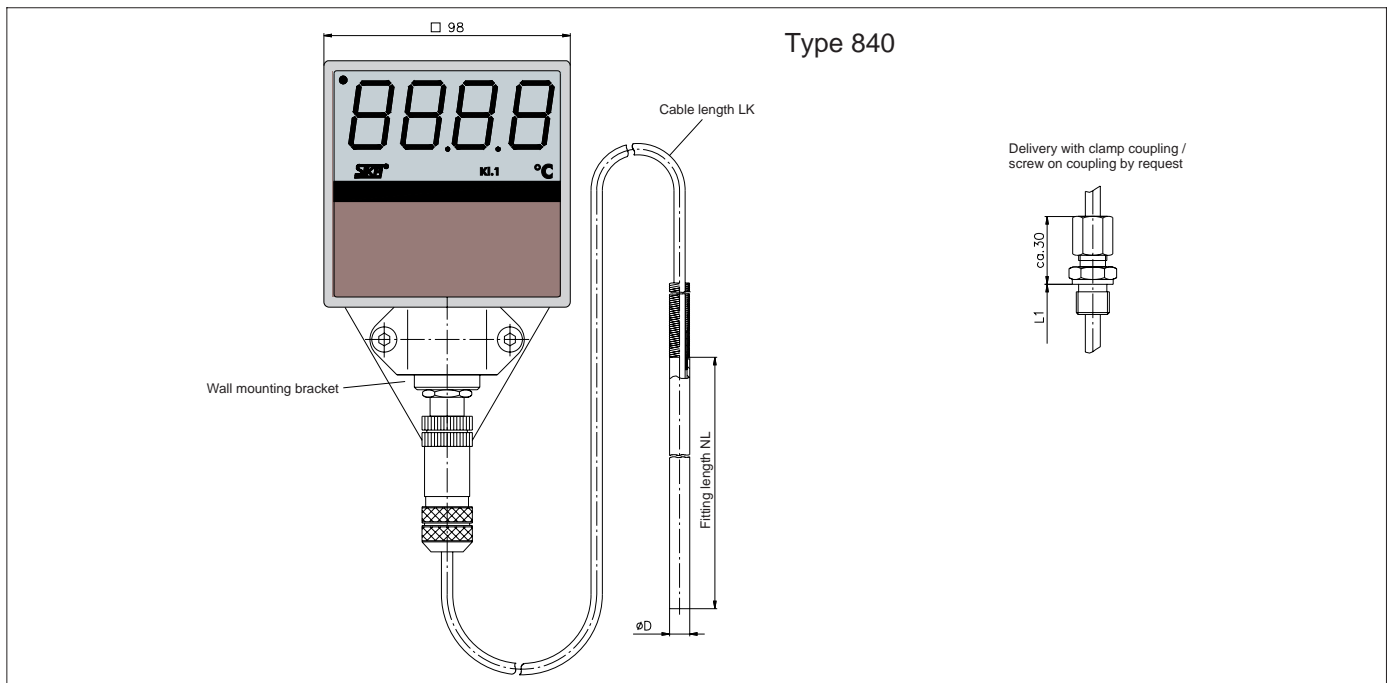
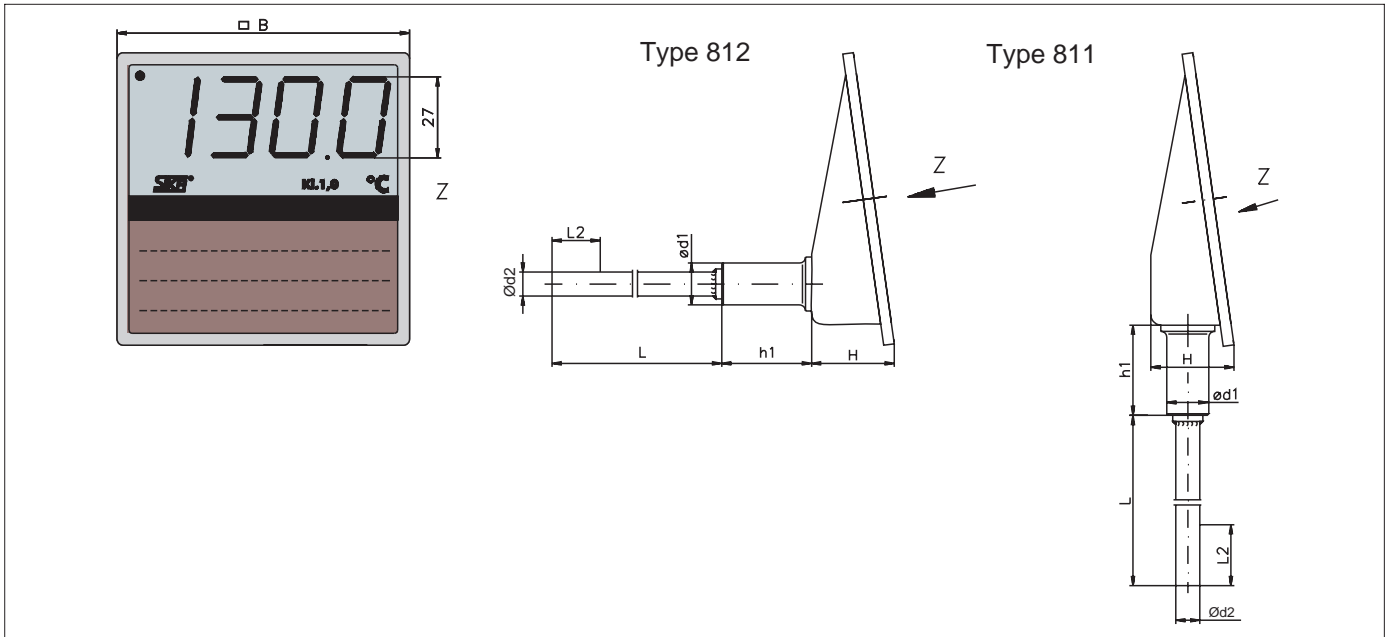
- As mechanical contacts are left out, the thermometer is failsafe and undesired switch actions are avoided, e.g. caused by vibrations.
- Menu-driven contactless programming of switch points and hysteresis.
- Electronic monitoring of all functions like e.g. switch contacts, battery, plausibility of measurements values.
- On-site function display and low battery condition warning.

Electronic temperature switch	
Switch temperature	Total temperature measurement range; resolution 1 K
Back-switch temperature	Total temperature measurement range; resolution 1 K
Switch point accuracy	1 K
Switch point setting	Contactless programmable
Electrical connection	Instrument plug for cable connection acc. DIN EN175301-803-A, 3-pole with earth connection screwed cable gland for d = 6,5–13 mm Cable cross section up to A = 1,5 mm <sup>2</sup>
Operating voltage	48 V, +/-10 %, AC/DC 0...60 Hz
Operating voltage Ex-version	24 V, +/-10 %, AC/DC 0...60 Hz
Switch current	max. 100 mA (per channel)
Transition resistance	nom. 35 Ohm
EMV	EN 61326 (03-2002)
Switch output	2 x closer (SSR) - 1 x programmable - 1 x Info
Switching cycle	Duration of contact connection $t_{on} = 1$ min. approx. 5000 switching operations
Auxiliary switch units	Certified intrinsic safety required for Ex-version
Ex-version	Signal circuit in ignition protected type: intrinsic safety EEx iaIIC. Only for connection to a certified intrinsically safe circuit. Max. value: $U_i = 26.4$ V, $I = 100$ mA



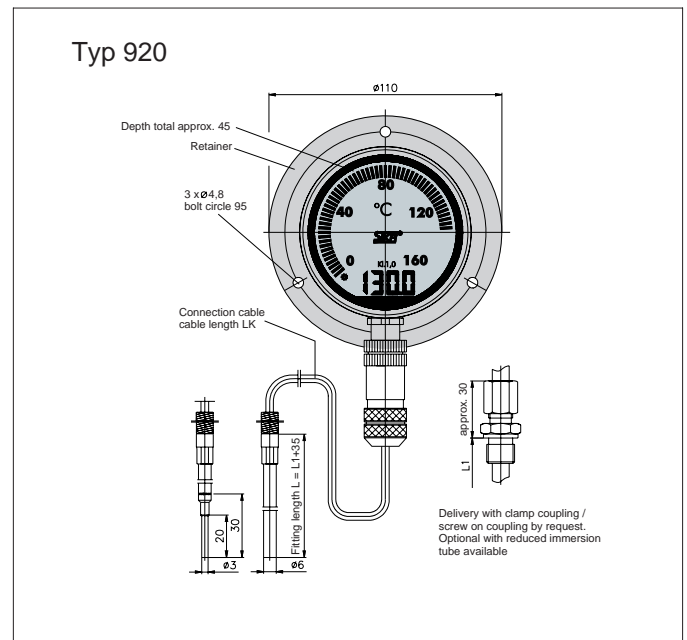
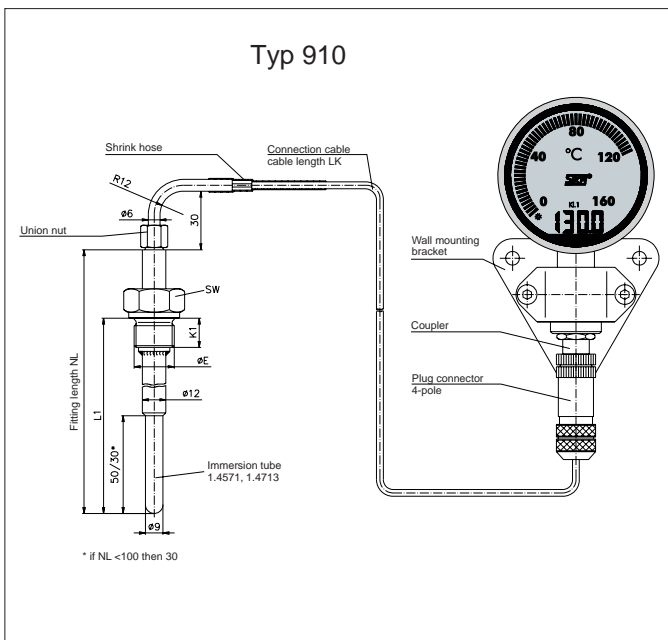
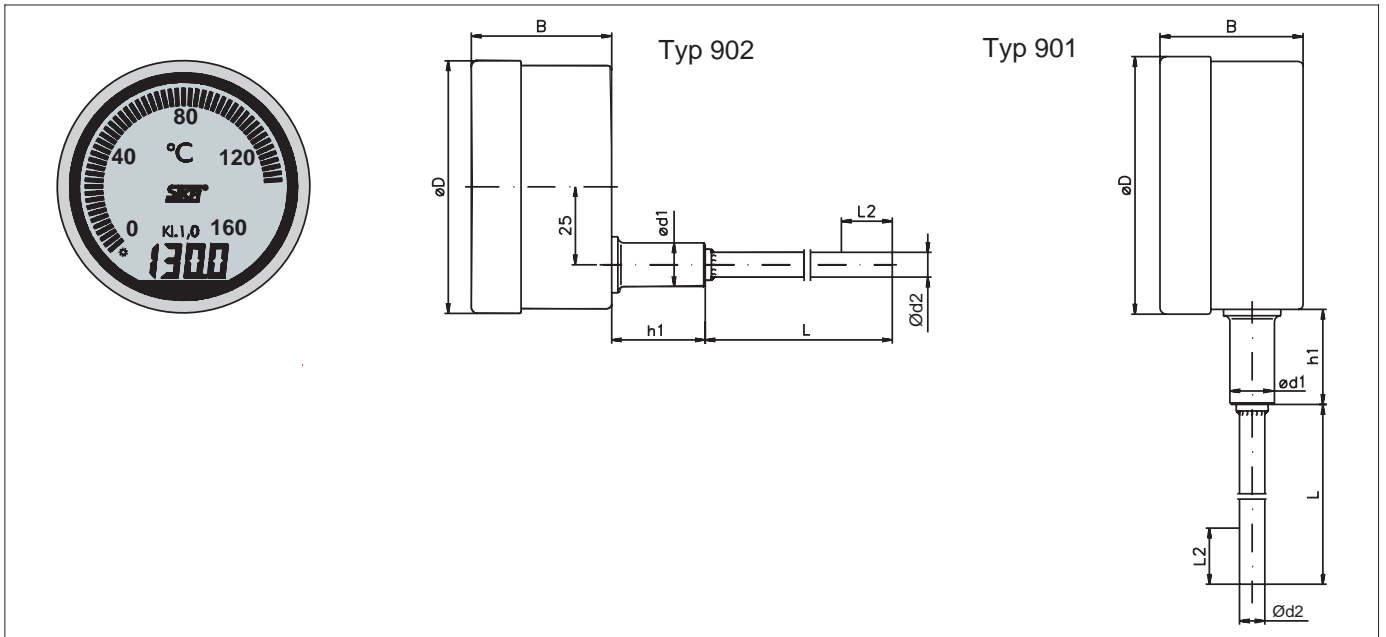
The technical data of the thermometers take from page 5-6

## Case types and dimensions SolarTemp



B	Ø d1	Ø d2	H	h1	L	L2	SW1	SW2	dG
98	14	6 8	≈28	30	see data sheet	20	17	27	G ½ M20X1,5
								32	G ¾

**Case types and dimensions DiTemp**



B	Ø d1	Ø d2	Ø d3	H	h1	L	L2	SW1	SW2	dG
98	14	6 8	3	≈28	30	see data sheet	20	17	27 32	G ½ M20X1,5 G ¾

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Subject to technical modification

