

# TG, TH, TJ

## Технические характеристики

### По вопросам продаж и поддержки обращайтесь:

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Архангельск (8182)63-90-72	Калининград (4012)72-03-81	Новосибирск (383)227-86-73	Сочи (862)225-72-31
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Вологда (8172)26-41-59	Липецк (4742)52-20-81	Рязань (4912)46-61-64	Ульяновск (8422)24-23-59
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Ижевск (3412)26-03-58	Набережные Челны (8552)20-53-41	Севастополь (8692)22-31-93	Череповец (8202)49-02-64
Иркутск (395)279-98-46	Нижний Новгород (831)429-08-12	Симферополь (3652)67-13-56	Ярославль (4852)69-52-93
Россия (495)268-04-70	Киргизия (996)312-96-26-47	Казахстан (7172)727-132	

# Thermometers

## General Purpose Series

Nominal diameter 7mm. Spirit filled, with ranges and graduations as indicated. Supplied singly.

T = Total immersion

P = Partial immersion (76mm)

### Thermometers, general purpose

Nominal length 300mm unless otherwise stated.

	Ref.	Range, °C	Grad. °C	Imm.
<b>White back, Red spirit filled</b>				
	TG150-22	—	-50 to 50	1.0 P
	TG154-26	—	-10 to 50	0.5 P
	TG154-30	—	-10 to 110	0.5 P
	TG154-35	—	-10 to 110	1.0 P
	TG154-40	—	-10 to 150	1.0 P
	TG154-50	—	-10 to 250	2.0 P

### Yellow Back, Blue Spirit filled, PTFE encapsulated

PTFE encapsulation retains glass and filling should the thermometer be broken.

	TG225-30	—	-50 to 110	1.0 P
	TG225-35	—	-10 to 110	1.0 P
	TG225-40	—	-10 to 150	1.0 P
	TG225-50	—	-10 to 250 <sup>#</sup>	1.0 P

\*Red spirit filled

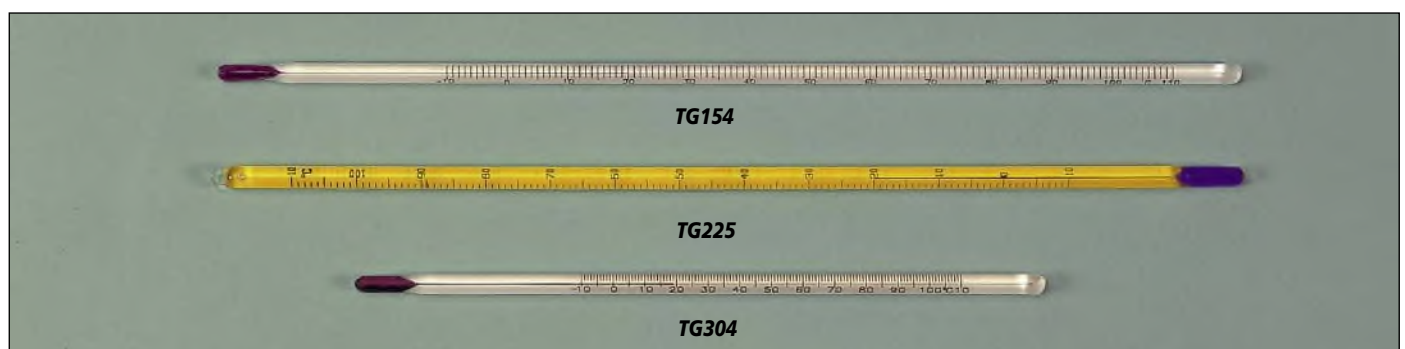
### Thermometer, general purpose

Nominal length 200mm. White back. Red spirit filled.

	Range, °C	Grad. °C	Imm.
TG304-35	-10 to 110	1.0	T

### Mercury Thermometers

Under European Regulation (EC) no. 1907/2006 amend. (EU) no. 847/2012, mercury thermometers can no longer be supplied within the EU.



# Thermometers

## UKAS Certified Thermometers

### UKAS Certified BS1704:1985 (ISO1770:1981) Thermometers

White backed. Spirit filled. The certificate issued provides observed correction at 5 points on the thermometer scale. 75mm immersion.

	Schedule	Range, °C	Grad. °C	Length, mm
<b>TG525-30</b>	D/75 UKAS	0 to 100	1.0	305
<b>TG525-35</b>	E/75 UKAS	0 to 160	1.0	305
<b>TG525-40</b>	F/75 UKAS	0 to 250	1.0	305

### Mercury Thermometers

Under the requirements of Annex XVII of EC552/2009 REACH Regulations, mercury thermometers can no longer be sold within the UK or EU.

Uncertified BS1704 thermometers remain available to special order only and subject to deletion without notice - details on request.

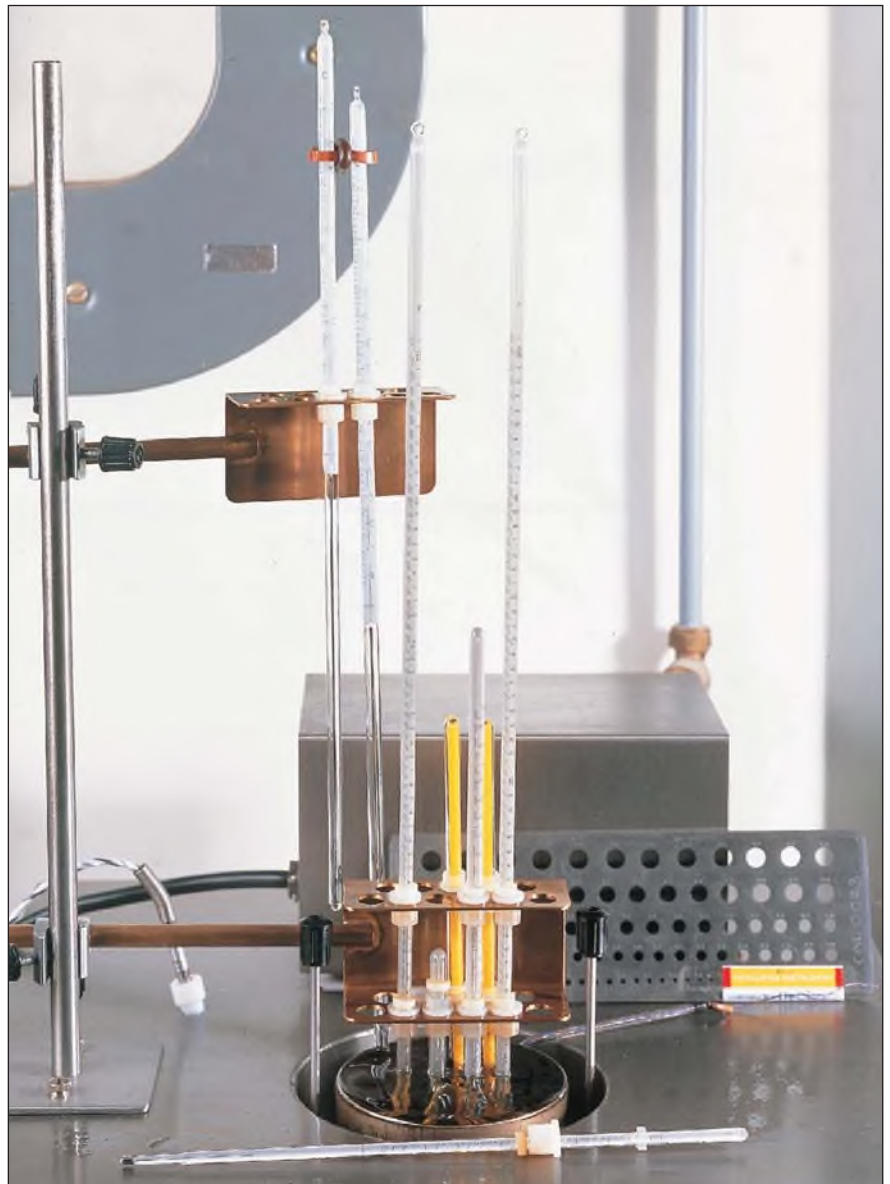
### Certification of Thermometers

Most types of standard thermometer including BS1704, BS593, IP and ASTM can be certified either as:-

- a) A certificate of conformity.
- or b) The manufacturer's test which provides observed corrections at 5 points on the scale.
- or c) A UKAS (BCS/NPL) test which provides observed corrections at 5 points on the scale.

If you require prices for Certified Thermometers please contact our Sales Department for a quotation.

UKAS – United Kingdom Accreditation Service, formerly NAMAS.



# Thermometers

## Standard, BS593

Spirit filled. Yellow back. Nominal diameter 7mm. Nominal length: 400mm.

	Schedule	Range °C	Grad. °C
<b>A-Series 100mm Immersion</b>			
<b>TG604-15</b>	A10C/100	-30 to 10	0.1
<b>TG604-25</b>	A40C/100	0 to 40	0.1
<b>TG604-30</b>	A70C/100	40 to 70	0.1
<b>TG604-35</b>	A100C/100	70 to 100	0.1

### Mercury Thermometers

Under the requirements of Annex XVII of EC552/2009 REACH Regulations, mercury thermometers can no longer be sold within the UK or EU.

## Clinical Thermometers

### Clinical Thermometer

Gallium filled. With enclosed scale, range 35°C to 42°C x 0.1°C. Length approximately 100mm. In plastic case.

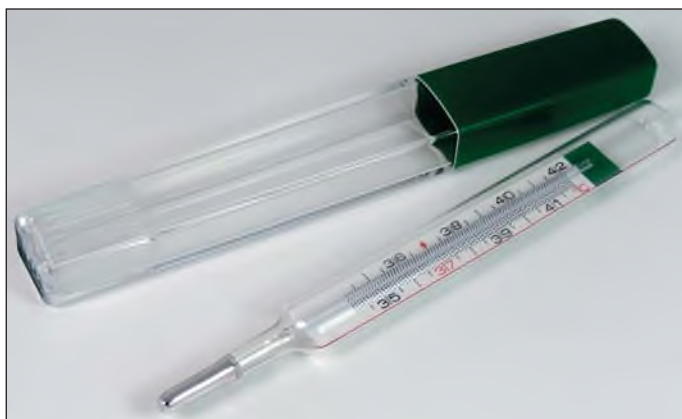
**TG700-45** Clinical thermometer, 35°C to 42°C

### Digital Clinical Thermometer

Range 32 to 43.9°C with LCD temperature indication to 0.1°C. Symbols "L" (low) and "H" (high) indicate when the temperature is outside the normal limits and the °C symbol flashes until the temperature has stabilised. Accuracy ±0.1°C between 35 and 38°C and ±0.2°C outside this range. Powered by one 1.5V silver oxide battery type SR41 which has a life equivalent to about 4000 temperature measurements in normal use. Overall 110 x 14 x 8mm. Weight 7g. With battery.

**TG715-10** Digital clinical

**BL630-06** Spare battery, 1.5V



TG700



TG715



TG604

# Thermometers

## Special Purpose Thermometers

### Dipping Thermometer

Spirit filled glass thermometer in a stainless steel case. Range -10 to 110°C. Overall length 320mm.

**TG745-15** Dipping

### Soil Thermometer

A spirit-in-glass thermometer, range 0 to 110°C mounted in an aluminium tube 225mm long with probe end for inserting into soil or compost and a cut-out front for reading the temperature. The top of the tube is marked with a large red sphere for ease of identification in the field.

**SG680-10** Soil

Standard Joint Thermometers – see *Quickfit* section.

Digital Max./Min. thermometer – see *TJ365-10*.

### Maximum/Minimum Thermometer

Six's pattern. Spirit filled. Dual scaled -30 to 50°C and -20 to 120°F and with two, push-button resettable, cursors. In wall mounting, cream plastic case with sloping weather shield.

**TG775-37** Max./Min.

### Maximum/Minimum Thermometer, Dial

With large, easy-to-read dual scale -40 to 50°C and -40 to 120°F. Simple twist dial resetting. With keyhole attachment hook for wall mounting.

**TG780-10** Dial

### Oven Thermometer

Dual scale dial thermometer, 50 to 300°C (100 to 600°F) in a stainless steel housing with integral hook. Dial diameter 50mm.

**TG795-10** Oven thermometer

### Pocket Thermometer

Red spirit filled. Range -10 to 110°C. Total immersion. Length 150mm. Mounted in opaque case which has a pocket clip.

**TG805-15** Pocket

### Wall Thermometers

Spirit filled. Dual scaled -10 to 50°C and 20 to 120°F. White plastic frame for wall mounting.

**TG835-15** General purpose

**TG835-20** Factory Act model

### Wall Thermometer, dial

Dual scaled -10 to 50°C and 14 to 120°F. Wall mounting.

**TG850-20** Dial wall

### Thermometer Cases

For solid stem thermometers from 5 to 7mm diameter. Brass case with front cut out, screw top and hanging ring.

	Thermometer length, mm
<b>TG950-30</b>	300/305
<b>TG950-35</b>	350/355

### Mercury Thermometers

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**TG775-37**



**TG795-10**



**TG850**



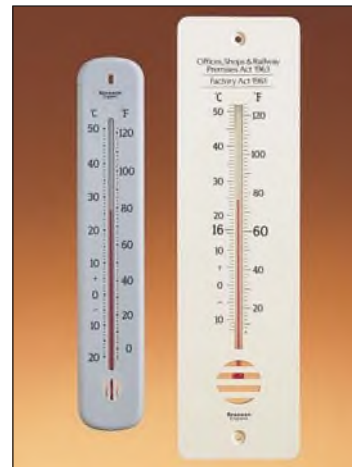
**TG745**



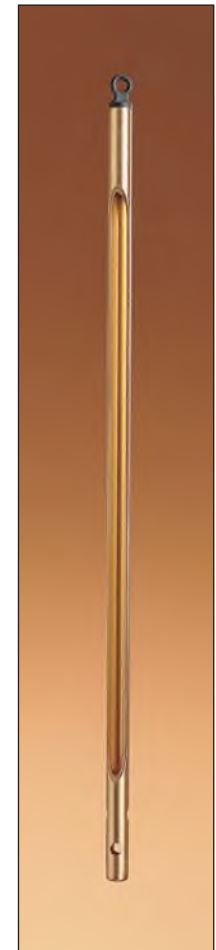
**SG680**



**TG805**



**TG835-15**



**TG950**

**TG835-20**

# Thermometers

## ASTM and IP Petroleum Test Thermometers

Spirit filled. Where a reference number appears in both ASTM and IP columns this designates that the thermometer has been agreed by ASTM and IP as direct equivalents. Lengths given are nominal. Other references and titles are available to special order only.

Reference	ASTM	IP	Title	Range	Grad.	Imm. x length, mm
TH300-10	1C	-	Partial Immersion	-20° to +150°C	1°C	76 x 327
TH300-23	3C	73C	Partial Immersion	-5° to +400°C	1°C	76 x 420
TH300-30	5C	1C	Cloud and Pour	-38° to +50°C	1°C	108 x 235
TH300-37	6C	2C	Low Cloud and Pour	-80 to +20°C	1°C	76 x 235
TH300-44	7C	5C	Low Distillation	-2° to +300°C	1°C	total x 390
TH300-77	12C	64C	Density-Wide Range	-20° to +102°C	0.2°C	total x 425
TH300-80	12F	64F	Density-Wide Range	-5° to +215°F	0.5°F	total x 425
TH300-94	15C	60C	Low Softening Point	-2° to +80°C	0.2°C	total x 400
TH304-72	28C	31C	Kinematic Viscosity	36.6° to 39.4°C	0.05°C	total x 310
TH308-32	37C	77C	Solvents Distillation	-2° to +52°C	0.2°C	100 x 400
TH328-52	120C	92C	Kinematic Viscosity	38.6° to 41.4°C	0.05°C	total x 310
TH328-55	121C	32C	Kinematic Viscosity	98.6° to 101.4°C	0.05°C	total x 310
TH406-74	-	39C	Density	-1° to +38°C	0.1°C	total x 450

### Mercury Thermometers

Under the requirements of Annex XVII of EC552/2009 REACH Regulations, mercury thermometers cannot be sold twithin the UK or EU.





# Thermometers

## Irreversible Strips and Checkers

### THERMAX

- Simple to use, self adhesive strips and liquid crystals for monitoring surface temperatures

#### Temperature Strips, 5-step

Each strip measures 35 x 15mm, is self-adhesive and printed with a temperature range in 5 steps, both in °C and °F. The temperature sensitive strip is encapsulated to resist oil, water and steam. When subjected to heat, an irreversible colour change from silver white to black occurs along the strip in stages thereby recording the maximum temperature reached. Supplied in packs of 10 strips.

	Range, °C	Range, °F
TH700-10	29/40	84/105
TH700-13	37/46	100/115
TH700-16	49/71	120/160
TH700-19	77/99	170/210
TH700-22	104/127	220/260
TH700-26	132/154	270/310
TH700-30	160/182	320/360
TH700-34	188/210	370/410
TH700-38	216/249	420/480
TH700-42	249/290	480/554

#### Temperature Strips, 8-step

Comprising irreversible self-adhesive strips generally as TH700 series but with dual °C/°F temperature range printed in 8-stages. Each strip measures 51 x 18mm. Supplied in packs of 10 strips.

	Range, °C	Range, °F
TH704-12	37/65	99/149
TH704-15	71/110	160/230
TH704-18	116/154	241/309
TH704-21	160/199	320/390
TH704-24	204/260	399/500

#### Temperature Strips, 10-step

Generally as TH704 but with dual °C/°F temperature range printed in 10-stages. Each strip measures 51 x 18mm. Supplied in packs of 10 strips.

	Range, °C	Range, °F
TH715-10	40/71	104/106
TH715-15	77/127	717/261
TH715-20	132/182	270/360
TH715-25	188/249	370/480

## Reversible Liquid Crystals

#### Liquid Crystal Strips

Self adhesive. The liquid crystal changes from black through a spectrum of colours as the temperature changes. Supplied in packs of 10 strips.

	Range, °C	Range, °F
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#### 7-step (5°C steps)

44 x 12mm.

TH782-18	0/30	32/86
TH782-22	30/60	86/140
TH782-26	60/90	140/194

#### 8-step (1°C steps)

63 x 12mm.

TH784-12	-3/+4	26/40
TH784-20	14/22	58/72
TH784-24	23/31	74/88

#### Liquid Crystal Strips

Self-adhesive, 12-step, horizontal scale, reversible liquid crystal thermometer strips. Colour panels appear behind figures as the specific temperature is reached. Available in two scales for use in refrigerators or monitoring room temperature. Size 90 x 10mm L x W. Supplied in packs of 10 strips.

TH786-15	Refrigerator, 0 to 12°C x 1°C
TH786-25	Room, 10 to 32°C x 2°C

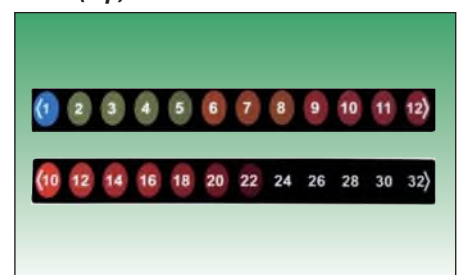
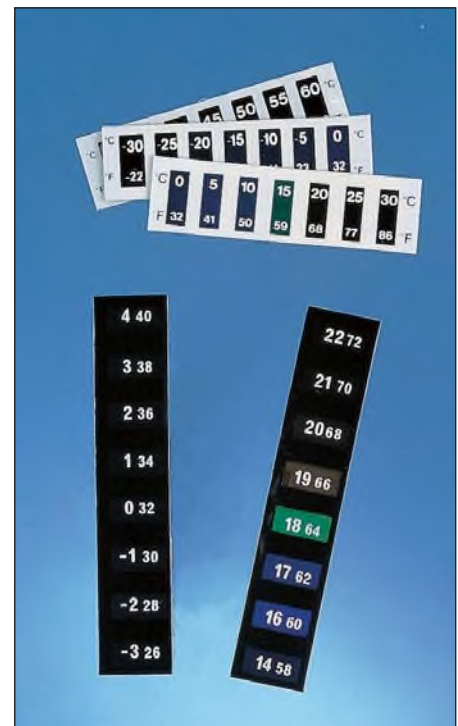
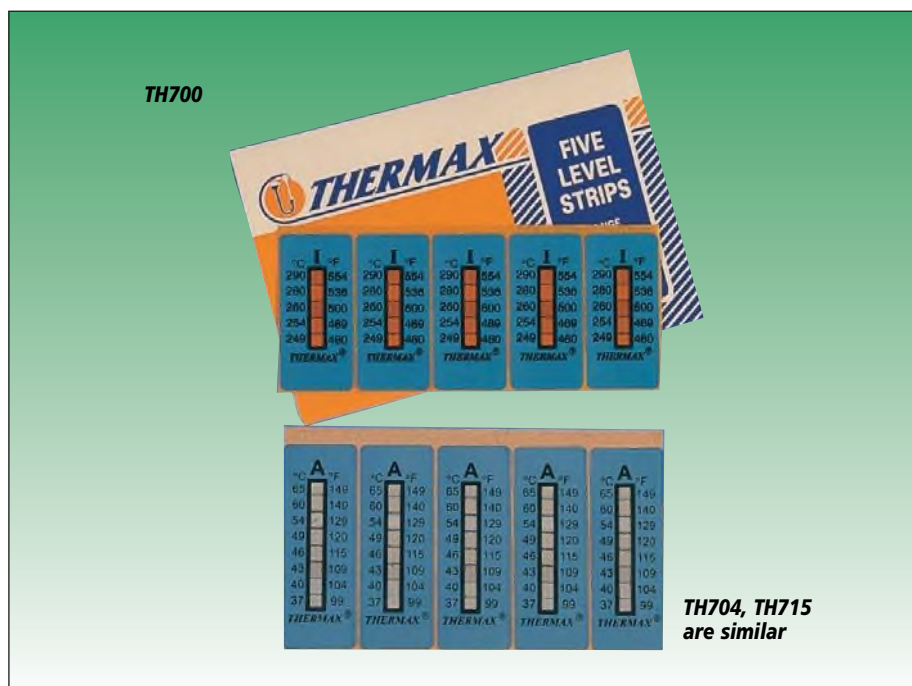
#### Important Note - Irreversible temperature strips

Irreversible temperature strips have a limited shelf life which can be maximised by storage in a sealed bag at temperatures as follows. If stored correctly the approximate shelf-lives of strips will be:

Ranges from 29 to 34°C / 84 to 93°F – 6 months (require refrigerated storage between +2 and +10°C).

Ranges from 37 to 49°C / 99 to 120°F – 12 months (require refrigerated storage between +2 and +10°C).

Ranges from 54 to 290° / 130 to 554°F – 24 months (require storage at room temperature & Humidity, i.e. 20°C or 68°F & 50% relative humidity).



# Thermometers

## Digital Thermometers, C2000 Series

A range of compact, high accuracy, microprocessor controlled digital thermometers offering enhanced specifications at a competitive price.

- ◆ Choice of Pt100 or thermocouple sensor input models
- ◆ Waterproof, rugged ABS casing to IP67 standard
- ◆ Very wide ambient temperature operating range, -30 to +50°C
- ◆ High contrast LCD and user-friendly keypad operation
- ◆ Secondary display feature on Models C2010, C2020 and C2050
- ◆ Thermocouple sensor models feature user selection of probe type input via the keypad (types K, J, E, T, R or N thermocouples selectable)
- ◆ Dual input thermocouple model available with differential display (Model C2020)
- ◆ Open circuit sensor detection and "low battery" warning featured on all models

### Range Specifications

Sensor input		Measurement ranges* °C	Accuracy °C (at ambient 23°C)
Thermocouples	K	-200 to +1372	±0.2 ±0.15% of reading
	J	-200 to +1200	±0.2 ±0.15% of reading
	E	-200 to +1000	±0.2 ±0.15% of reading
	T	-200 to +400	±0.2 ±0.15% of reading
	R	-50 to 200	±0.8 ±0.6% of reading
	N	>+200 to +1767	±0.8 ±0.3% of reading
Pt100		-200 to +850	±0.2 ±0.1% of reading

\* These are the display capabilities of the instruments only, measurable range will depend on the thermocouple probe used - please contact us if you require a probe for use outside our standard range.

### General Specifications

Model	C2000	C2010	C2020	C2050
Sensor inputs	K, J, E, T, R, N	K, J, E, T, R, N	K, J, E, T, R, N	Pt100
Temperature scales	°C, °F	°C, °F, °A	°C, °F, °A	°C, °F, °A
Resolution °C, °F, °A	0.1 (range 1000), 1 (range >1000) — all models			
Additional features	—	Max./min. Hold	Twin inputs, Difference, Hold	Max./min. Hold
Power	9V PP3 Alkaline battery — all models			
Dimensions W x D x H mm	70 x 130 x 33 — all models (meter only)			

### Digital Thermometer, Model C2000

Budget level, general purpose instrument for use with thermocouple sensor probes. °C or °F display selectable. Supplied with rubber surround, 9V battery and instructions. Without sensor probe.

**TJ105-10** C2000

### Digital Thermometer, Model C2010

Generally as TJ105-10 but with additional °A display selection and max./min./hold feature on a secondary display whilst real-time measurement continues on the primary display. Without sensor probe.

**TJ105-20** C2010

### Digital Thermometer, Model C2020

For direct or differential measurement applications. Generally as TJ105-20 but with dual thermocouple inputs. Simultaneous display of both inputs or differential measurement reading on the primary display, whilst input 1 readings continue on the secondary display (thermocouple inputs must be of the same type). A hold facility is also provided. Without sensor probes.

**TJ105-30** C2020

### Digital Thermometer, Model C2050

High accuracy Pt100 thermometer with long-term stability, four wire system, °C, °F, °A display selection, max./min./hold feature with secondary display. Without sensor probe.

**TJ107-25** C2050

**BL610-25** Spare 9V battery

Accessory sensor probes – see following page.





# Thermometers

## Thermocouple Simulator C2030

# COPE

A highly accurate and versatile instrument which can simulate a known temperature to cross check calibration accuracy of other type K, J, E, T, R or N thermocouple thermometers or alternatively be used itself as a measuring instrument.

Model	C2030	
Ranges*	Type K	°C 0 to +1372
	Type J	°C -200 to +1200
	Type E	°C -200 to +1000
	Type T	°C -200 to +400
	Type R	°C -50 to +1767
	Type N	°C -200 to +1200
Accuracy (at 23°C ambient)	°C	±0.2 ±0.15% of reading (±0.8 ±0.6% max. with Type R sensor)
Scales	°C, °F, °A	
Resolution °C, °F, °A		0.1 (range 1000), 1 (range >1000)
Power		9V PP3 Alkaline battery
Dimensions W x D x H	mm	70 x 130 x 33

\* Measure or simulate modes.

### Thermocouple Simulator C2030

As described. Supplied with thermometer connector, with 1m coiled cable and miniplugs at each terminal, 9V battery and instructions.

**TJ109-05** C2030  
**BL610-25** Spare 9V battery



TJ109-05

## Accessory Probes for C2000 Series Thermometers and Model C2030

### Platinum Resistance (Pt100) Probes for TJ107-25 only

With encapsulated handle, 2 metre coiled cable and connector.

	Temp. range °C	Shape, dimensions
<b>Immersion*</b> <b>TJ114-01</b>	-50 to +500	
<b>Penetration*</b> <b>TJ114-08</b>	-50 to +500	
<b>Moving air</b> <b>TJ114-14</b>	-50 to +500	

\* Waterproof.

### Thermocouple Probes for TJ105-10 to TJ105-30 and TJ109-05

Mineral insulated. Types K or T thermocouples with encapsulated handle, 2 metre coiled cable and connector with heavy duty, food safe, polyurethane sleeving and miniplug.

	Type	Temp. range °C	Shape, dimensions
<b>Still air</b> <b>TJ115-30</b>	K	-100 to +750	
<b>TJ117-30</b>	T	-100 to +450	
<b>General purpose</b> <b>TJ115-33</b>	K	-200 to +1100	
	T	-200 to +400	
<b>General purpose*</b> <b>TJ115-36</b>	K	-200 to +1100	
	T	-200 to +400	
<b>Needle*</b> <b>TJ115-39</b>	K	-100 to +280	
	T	-100 to +280	
<b>Spring-loaded</b> <b>TJ115-42</b>	K	-50 to +600	

\* Waterproof.

### Fine Wire Thermocouple Sensors for TJ105-10 to TJ105-30 and TJ109-05

Low mass, small bead thermocouples, 0.2mm diameter, giving fast response and excellent repeatability in air, liquid or surface applications. Supplied 1 metre long with miniplug.

	Type	Temp. range °C	Style
<b>PTFE insulation</b> <b>TJ115-65</b>	K	-100 to +250	
<b>TJ117-65</b>	T	-100 to +250	
<b>Glass fibre insulation</b> <b>TJ115-67</b>	K	-50 to +450	
<b>TJ117-67</b>	T	-50 to +400	

### Alternative Thermocouples

A wide variety of thermocouple types and styles and for use at extreme ranges can be offered on receipt of detailed specifications - please contact us with your requirements.

# Thermometers

## Printing Thermometer P4101

Portable, dual input, type K or type T thermocouple thermometer with integral thermal printer for permanent recording of results.

- ◆ Prints temperature with time and date record
- ◆ Programmable printing intervals
- ◆ Min./Max./Average temperature functions
- ◆ Optical High/Low alarm
- ◆ °C, °F selectable
- ◆ Membrane keypad operation
- ◆ Supplied with NIST-traceable certificate, print roll and carrying case

Model	P4101	
Ranges*	Type K	°C -200 to +1333
	Type T	°C -200 to +400
Accuracy	°C ±1.0	
Scales	°C, °F	
Resolution	°C, °F 0.1	
Power	9V PP3 Alkaline battery	
Dimensions W x D x H	mm	75 x 190 x 38
Weight	g	300

### Printing Thermometer P4101

As described. Supplied with NIST-traceable calibration certificate, print roll, carrying case and 6 x 1.5V batteries. Without sensor probes.

- TJ108-20** P4101
- TJ108-56** Spare print roll for TJ108-20
- TJ108-59** Accessory a.c. adapter for TJ108-20, 100-240V supplies
- BL610-08** Spare 1.5V battery (6 required)

## Accessory Probes for P4101

### Thermocouple Probes for TJ108-20

Mineral insulated. Types K or T thermocouples with encapsulated handle, 2 metre coiled cable and connector with heavy duty, food safe, polyurethane sleeving and miniplug.

	Type	Temp. range °C	Shape, dimensions
<b>Still air</b>			
<b>TJ115-30</b>	K	-100 to +750	
<b>TJ117-30</b>	T	-100 to +450	
<b>General purpose</b>			
<b>TJ115-33</b>	K	-200 to +1100	
<b>TJ117-33</b>	T	-200 to +400	
<b>General purpose*</b>			
<b>TJ115-36</b>	K	-200 to +1100	
<b>TJ117-36</b>	T	-200 to +400	
<b>Needle*</b>			
<b>TJ115-39</b>	K	-100 to +280	
<b>TJ117-39</b>	T	-100 to +280	
<b>Spring-loaded</b>			
<b>TJ115-42</b>	K	-50 to +600	

\* Waterproof.

### Fine Wire Thermocouple Sensors for TJ108-20

Low mass, small bead thermocouples, 0.2mm diameter, giving fast response and excellent repeatability in air, liquid or surface applications. Supplied 1 metre long with miniplug.

	Type	Temp. range °C	Style
<b>PTFE insulation</b>			
<b>TJ115-65</b>	K	-100 to +250	
<b>TJ117-65</b>	T	-100 to +250	
<b>Glass fibre insulation</b>			
<b>TJ115-67</b>	K	-50 to +450	
<b>TJ117-67</b>	T	-50 to +400	

### Alternative Thermocouples

A wide variety of thermocouple types and styles and for use at extreme ranges can be offered on receipt of detailed specifications - *please contact us with your requirements.*



TJ108-20

# Thermometers

## Digital Thermometers

### Indoor/Outdoor Thermometer

Ranges -10°C to +50°C (indoor), -50 to +70°C (outdoor), resolution 0.1°C (0.1°F) accuracy ±1°C (±1.5°F). With 12mm high, dual LCD readout. The upper display shows the temperature measured by the built-in sensor. The lower display shows the temperature measured by the water-resistant remote probe which is fitted to a 3 metre cable. A max./min. memory function is provided which allows the maximum and minimum recorded value for each sensor to be recalled and displayed; the user then has the option to reset. Overall 70 x 20 x 110mm W x D x H. Supplied with 1 x 1.5V AAA battery for operation.

**TJ355-15** Indoor/outdoor thermometer

**BL610-08** Battery, 1.5V AAA

### Digital Maximum/Minimum Thermometer

For indoor or outdoor use. Range -20°C to +50°C switchable to -4°F to +122°F with reset. Displays current temperature and maximum and minimum temperatures since the last reset. With splash-resistant casing, overall 75 x 44 x 115mm W x D x H, with keyhole for hanging and battery.

**TJ365-10** Digital max./min. thermometer

**BL610-15** Battery, 1.5V AA

### Mini Infra-red Thermometer

For non-contact temperature measurement. With Min./Max. display modes. "Hold" and "Lock" functions.

Range: -33°C to +220°C x 0.1°C

Accuracy: ±1.5°C (0 to 50°C) otherwise ±2°C or 2%, whichever is larger (for rest of the range)

Emissivity: Fixed (E=0.95)

Response time: 1 second

With ergonomically designed casing, LCD readout, and 1 x 3V battery. Overall 68 x 37 x 18mm W x D x H. Weight 31g.

**TJ380-40** Infra-red thermometer

**BL590-25** Battery, 3V

### Infra-red Thermometer

For non-contact temperature measurement. With Min./Max. display modes, and differential, averaging and "Hold" functions.

- ◆ Ergonomic, pistol-grip, hand-held design
- ◆ Over/under temperature audio/visual alarm
- ◆ Backlit LCD readout

Range	Temperature:	-10°C to +199.9°C x 0.1°C
Accuracy	Temperature:	±2°C
Measuring time		<1 second
Range distance : spot dia. ratio		12:1
Overall H x W x D	mm	174 x 40 x 72
Weight	g	180
Power		2 x 1.5V AAA batteries

As described. Supplied with carrying case and 2 x 1.5V AAA batteries.

**TJ390-20** Infra-red thermometer

**BL610-08** Battery, 1.5V AAA (2 required)

Digital memory thermohygrometer - see *HY390-20*.



**TJ355-15**



**TJ365-10**



**TJ380-40**



**TJ390-20**

# Thermometers

## Digital Thermometers, Certified and Traceable

### Waterproof Thermometer, Certified

Hand-held, waterproof (to IP65 ingress level), digital thermometer, range -40 to +240°C x 0.1°C with 120 x 4mm L x diameter, fixed stainless steel probe, Max./Min. function, manufacturer's certificate of calibration (two point) traceable to national and international standards, including NPL and NIST and 1.4V LR48 button cell battery. Overall 20 x 15 x 200mm W x D x H weight: 33g.

**TJ460-35** Waterproof thermometer, certified

### Waterproof Folding Probe Thermometer, Certified

Hand-held, waterproof (to IP65 ingress level), digital thermometer, range -50 to +150°C x 0.1°C with 85 x 3.5mm L x diameter, folding stainless steel probe, Auto On/Off and Hold functions, manufacturer's certificate of calibration (two point) traceable to national and international standards, including NPL and NIST and 1.4V LR44 button cell battery. Overall 45 x 18 x 125mm W x D x H, weight: 85g.

**TJ460-40** Waterproof thermometer, certified

**BL610-04** Spare 1.4V LR44 battery

### Twin reading Thermometer, Certified

Digital thermometer with attached probe and 2m cable with single display that can be toggled between unit and probe temperatures respectively. Ideal for monitoring fridges, freezers or outdoor/indoor temperatures simultaneously. Ranges -20 to +70°C (internal), -50 to +70°C (external probe) x 0.1°C resolution, with Max./Min.function, magnetic attachment and supplied with 1.5V AAA battery and manufacturer's certificate of calibration (two point) traceable to national and international standards including NPL and NIST. Overall 110 x 35 x 170mm W x D x H (unit) , weight 62g.

**TJ460-50** Twin reading thermometer, certified

**BL610-08** Spare 1.5V AAA battery



**TJ460-35**



**TJ460-40**



**TJ460-50**



# Thermometers

## Digital Thermometers

### HANNA

#### Digital Thermometers, Checktemp

Temperature range:

-50 to +150°C. Resolution 0.1°C

Accuracy:

±0.3°C (-20 to 90°C), ±0.5°C (rest of range)

All-in-one unit with thermometer housing mounted on a stainless steel cased thermistor probe, on/off switch, LCD readout, calibration test switch and 1.4V battery. Overall 171 x 50 x 25mm L x W x H. Probe 105 x 3mm L x dia. Weight 50g.

**TJ702-10** Checktemp C

**BL610-04** Spare battery, 1.4V

#### Digital Thermometers, Checktemp 1

Ranges, resolutions and features as TJ702 but with stainless steel cased thermistor probe on 1 metre flexible lead for remote operation. Overall 106 x 58 x 19mm L x W x H. Probe 106 x 3mm L x dia. Weight 80g.

**TJ705-12** Checktemp 1C

#### Digital Thermometer, Checktemp 4C

Temperature range: -50 to +220°C

Resolution:

0.1°C (-50 to 199.9°C),  
1°C (rest of range)

Accuracy:

±0.3°C (-20 to +90°C), ±1%fsd (rest of range)

With hinged, stainless steel thermistor probe 117 x 3.5mm L x dia., folding into case when not in use. Automatic calibration check at switch-on. With 1 x 1.5V AA battery and wrist strap. Overall 165 x 50 x 20mm L x W x H (probe folded). Weight 100g.

**TJ710-17** Checktemp 4C

#### Digital Thermometer, dual range, HI-935007

Dual measurement ranges:

-50 to +199.9°C. Resolution 0.1°C

+200 to +900°C. Resolution 1°C

-58 to +399.9°F. Resolution 0.1°F

+400 to +1650°F. Resolution 1°F

Accuracy:

±0.2% of full scale

Microprocessor based, with splashproof keypad. Includes temperature 'hold' facility and maximum/minimum temperature memory with twin-line LCD display featuring actual, min and max (since switch-on) temperatures. Readings can be user-selected in °C or °F. Overall 150 x 80 x 36mm L x W x H. Weight 300g. With fixed, Type K thermocouple probe and 3 x 1.5V AA batteries.

**TJ720-85** HI-935007

**BL610-15** Spare battery, 1.5V AA (3 required)

Digital Clinical Thermometer – see TG715.

Digital Hygrometers – see HY390/HY530.

#### Digital Thermometers

Ergonomically designed, high accuracy Type K thermocouple thermometers.

Dual measurement ranges:

-200 to +1371°C -328 to +2500°F

Resolution:

0.1°C/0.1°F <1000°C/1000°F

1.0°C/1.0°F >1000°C/1000°F

Accuracy:

±0.2% of full scale

Microprocessor controlled, with splashproof rubber keypad. Includes on/off switch, display "hold" key, °C/°F mode key, wrist strap and 9V battery. In addition TJ725-20 has a memory to register both highest and lowest values and separate recall keys. Overall dimensions 150 x 80 x 36mm L x W x H. Weight 235g. Requires, but does not include, type K thermocouple probe.

**TJ725-10** HI-93530

**TJ725-20** HI-93531, with memory

**BL610-25** Spare battery, 9V

#### Thermocouple Probes Type K

For TJ725-10 and TJ725-20. With handle and 1 metre of flexible cable.

	Max. temp. °C	Length x dia. mm	Type
<b>TJ733-10</b>	900	120 x 3	Immersion. Air/liquid
<b>TJ733-15</b>	300	250 x 3	Air probe. Fast response
<b>TJ733-17</b>	900	125 x 3.2	Hypodermic insertion for most semi-solids
<b>TJ733-22</b>	650	205 x 5	Surface



TJ702



TJ710



TJ705



TJ725-10, TJ725-20 is similar



TJ720-85

# Thermometers

## Temperature Sticks



### Temperature Sticks, Testo 905 series

Compact temperature measurement sticks with choice of immersion or surface type K thermocouple probes. Range -50 to +350°C, accuracy ±1% reading. With swivelling display head, large LCD readout, on/off key, auto-off function and 3 x 1.5V AAA batteries. Overall 230 x 37 x 36mm H x W x D. Weight 80g. Dimensions stated are probe length x diameter.

- TJ780-20** Testo 905-T1, immersion, 200 x 3mm
- TJ780-30** Testo 905-T2, surface, 150 x 12mm
- BL610-08** Spare battery, 1.5V AAA (2 required)

## Penetration Thermometers, Testo 106

### Penetration Thermometers, Testo 106

For rapid, spot checking of temperature in a variety of applications. Range -50 to +275°C x 0.1°C. With robust ABS casing, LCD readout, push button operation including 'hold' function, LED alarm indicator which operates should a set temperature range be exceeded or undershot, fixed stainless steel probe with protection sleeve and batteries. Also available as a set supplied with protective outer casing, giving IP67 level protection, and belt holster. Overall 215 x 34 x 19mm, L x W x H. Weight 80g.

- TJ785-24** Testo 106
- TJ785-26** Testo 106 set
- BL590-25** Spare battery, 3V (2 required)



TJ780-30

TJ780-20



TJ785

# Thermometers

## Digital Thermometers



Ergonomically designed, compact and easy-to-use digital thermometers. With infra-red data output to accessory printer, adjustable alarm settings, max./min. display and backlit LCD readout.

Model	110	720	925
Input	NTC sensor	Pt100 sensor	Type K thermocouple
Measurement range*	°C -50 to +150	-100 to +800	-50 to +1000
Accuracy (± 1 significant digit)	°C ±0.2 (-20 to +80) ±0.3 (rest of range)	±0.2% of reading (+100 to +800°C), ±0.2°C (rest of range)	±0.5°C ±0.3% of reading (-40 to +900°C), ±0.7°C ±0.5% of reading (rest of range)
Resolution	°C 0.1	0.1	0.1 (-50 to +199.9), 1.0 (rest of range)
Display	13mm LCD, with hold facility — all models		
Overall L x W x H	mm 182 x 64 x 40 — all models		
Power supply	9V PP3 battery with auto shut off — all models		

\* This is the display capability of the instrument only, measurable range will depend on the thermocouple probe used.

### Digital Thermometers, Testo

As described. With carrying case, instruction manual and 9V battery. Without probe.

**TJ800-20** Testo 110

**TJ810-30** Testo 720

**TJ820-35** Testo 925

### Spares and accessories for all models

**BL610-25** Spare 9V PP3 battery

Thermal paper printer. With infra-red cordless data communication. Supplied with 4 x AA batteries and 1 roll of paper.

**AN472-40** Printer

Rechargeable battery charger for AN472-40. With 4 x NiMH rechargeable AA batteries and built-in mains adapter requiring a 100-240V 50/60Hz single phase supply.

**AN472-42** Battery charger/pack

**AN472-45** Spare thermal paper for AN472-40, pack of 6 rolls.

**BL610-15** Spare 1.5V AA battery for AN472-40 (4 required)

**HY472-08** TopSafe protection boot, protects against impacts and dirt

### Accessory probes

Stainless steel, with water-tight handles and 1.2 metre cables (except laboratory probes which are glass sheathed, have non water-tight handles and 1.5 metre cables). For applications as indicated.

Probe dimensions: 115 x 5mm L x diameter, except TJ812-20 which is 200 x 6mm L x diameter.

For meter	Probe range, °C	Immersion/ Penetration	Air	Surface*	Laboratory
TJ800-20	-50 to +150	<b>TJ802-14</b>	<b>TJ802-17</b>	<b>TJ802-19</b>	—
TJ810-30	-50 to +400	<b>TJ812-12</b>	<b>TJ812-15</b>	<b>TJ812-18</b>	<b>TJ812-20</b>
TJ820-35	-60 to +400	<b>TJ822-10</b>	<b>TJ822-17</b>	<b>TJ822-19*</b>	—

\*This probe has a 12mm diameter flat tip with sprung sensor strip and has a range of -60 to +300°C.



TJ800



TJ820 in use, TJ810 is similar



# Thermometers

## Mini Datalogger 174T



Compact, economical, single channel datalogger for temperature monitoring in various applications.

- ◆ Non-volatile memory, even when battery exhausted
- ◆ Internal NTC thermistor sensor
- ◆ Conforms to EN12830
- ◆ Large LCD readout with alarm and battery status indicators
- ◆ Data transfer via USB interface which also enables programming
- ◆ Push-button start
- ◆ IP65 protection class casing
- ◆ Battery powered, with easy replacement

Range x resolution	°C	-30.0 to +70.0 x 0.1
Accuracy	±°C	0.5
Maximum storage		16,000 readings
Measuring time cycle		Adjustable 1 minute to 24 hours
Overall, L x W x H	mm	59 x 37 x 16
Weight	g	25
Power supply		2 x CR2032 lithium battery giving approximately 500 days operation

As described. With wall holder, USB interface port, receiver and cable, and 2 x batteries. Requires Comsoft basic download/programming software (free, internet download).

- TJ847-20** Testo 174T set
- TJ847-24** Accessory Testo 174T logger only
- HY618-24** Accessory interface port receiver and cable
- BL590-15** Spare battery (2 required)



TJ847-20 in use

## Dataloggers, 175, 176



Long term, reliable temperature loggers with robust ABS casing offering either IP65 or IP68 protection, push-button start, SD card or USB data connection and flexible data handling options.

- Model 175 T1 Single channel, with internal NTC sensor and LCD readout
- Model 175 T2 Two channel, with internal NTC sensor, external NTC probe socket for use with accessory probes and LCD readout
- Model 176 T1 Single channel, expanded memory version, with internal sensor, but without display
- ◆ Internal interfaces for both USB or SD card data collection
- ◆ Measuring time cycle adjustable from 10 seconds to 24 hours (175 series) or 1 second to 24 hours (model 176)

Model		175 T1	175 T2	176 T1
Ranges	internal sensor	°C -35 to +55	-35 to +55	-35 to +70
	external sensor	°C —	-40 to +120	—
Resolution	°C	0.1 — both models		0.01
Memory	readings	1 million - both models		2 million
Protection rating		IP65 - both models		IP68
Overall, L x W x H	mm	53 x 27 x 89	53 x 27 x 89	63 x 33 x 103
Weight	g	150	150	260
Battery life (average)	years	>3	>3	>8

As described. Supplied with both USB and SD card data collection interfaces, wall holder, infra-red data transfer/control port, battery and calibration protocol. Requires, but is not supplied with, either an accessory USB cable or SD card for data transfer.

- TJ847-60** Testo 175 T1
- TJ847-65** Testo 175 T2

- TJ847-80** Testo 176 T1

### Accessories

#### Accessory probes for TJ847-65

With 1.5m lead. Dimensions are probe length x diameter.

- TJ802-14** Immersion, 110 x 4mm
- TJ802-17** Air, 110 x 4mm
- TJ802-20** Laboratory, glass sheathed, 200 x 6mm

- TJ847-87** USB cable for connecting 175 and 176 dataloggers to the user's PC

#### Comsoft 4 Professional software

With data handling, database, graphical and trend analysis functions for Windows™ OS.

- TJ847-98** Comsoft 4

SD cards - local purchase recommended



TJ847-60



TJ847-65



TJ847-80



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