

TEMPERATURE MEASUREMENT



SACCHAROMETER JAR THERMOMETER

Range: -10 to +50°C

Accuracy: $\pm 0.5^\circ\text{C}$ at 20°C Accuracy: ★★★★★

Use these with any of our Saccharometers (see pages 5 to 8). These are -10 to +50°C lab thermometers with 0.5°C divisions in a metal case with a sprung clip allowing them to be positioned at the correct immersion depth in a hydrometer jar, these thermometers are ideal for use with any of our saccharometers. If you are calculating the ABV of your beer using saccharometers, an error of 0.5°C in the temperature measurement will lead to an error of less than 0.02% ABV.

Product Code	Case Type	Price
B0509/HJS	Stainless-Steel Case	£39.00
B0509/HJB	Brass Case	£23.50



GENERAL-PURPOSE LAB THERMOMETERS

These are general purpose spirit filled lab thermometers, 305mm long and calibrated for use with a 76mm immersion into the liquid being tested. They are accurate to within one division at 20°C and are suitable for temperature checks where the highest precision is not required.

ACCURACY: ★★★★★ PRICE: £8.00

Product Code	Temperature Range
B0509/1	-10 to +50°C in 0.5°C
B0509/2	-10 to 110°C in 1.0°C

LAB THERMOMETER CASES

Cases for our lab thermometers are also available separately.

Product Code	Case Type	Price
B0500/SSC	Stainless-Steel Case	£31.50
B0500/SBC	Brass Case	£16.00
B0500/CLIP	Spring Clip for Cases	£2.70

BREWERS:

Use our Saccharometer Jar Thermometer when taking your Saccharometer Readings.

CERTIFICATION:

Comes with a serial number to help keep records of accuracy checks. We can supply these with works certificates showing that the thermometers have been tested and are reading accurately. Alternatively, it is simple to check your own thermometers using one of our reference thermometers (see page 24). These spirit-filled thermometers are not suitable for UKAS certification.

USE WITH:

If you are using our saccharometer jar thermometers, then a 63mm diameter jar will let you keep the thermometer in the jar while you take your saccharometer readings. This will give you the most accurate temperature readings. If you are using a narrower jar, then you may need to take the thermometer out of the jar between each saccharometer reading. Suitable jars are on page 17.

Use a suitable chart or set of tables (see page 16) to correct your hydrometer readings.

ALSO CONSIDER:

Any of our electronic thermometers will also be suitable for use when taking saccharometer readings. If you have one of our thermometers with a 1m long probe for checking tanks and vats, then get a short probe to use it with your saccharometers too.

If you would like a spirit filled thermometer that is easier to read and more accurate, then our B0446 precision hydrometer jar thermometer is a better choice.



PRECISION HYDROMETER JAR THERMOMETER

Range: -5 to +40°C in 0.5°C

Accuracy: $\pm 0.5^\circ\text{C}$ between -5 to 40°C

Accuracy: ★★★★★

Use these when checking the ABV of spirits with our BS5470 Alcohol Hydrometers (see page 10). Made to a higher specification than the general-purpose thermometers, these have easier to read scales and are accurate to within 0.5°C across the full range of the scale. They are calibrated for reading when completely immersed in the liquid and are supplied with a stainless-steel case which allows them to hang inside a hydrometer jar. If you are checking the ABV of spirits using a hydrometer, an error of 0.5°C in the temperature measurement will lead to an error of up to 0.2% ABV.

PRODUCT CODE: B0446

PRICE: £91.00

SPARE THERMOMETERS

These are red spirit filled lab thermometers, 245mm long and calibrated for use with total immersion into the liquid being tested. They are accurate to within 0.5°C and are suitable for ABV checks of spirits for HMRC declarations.

PRODUCT CODE: B0446/TUBE

PRICE: £47.00



DISTILLERS:

Use our Precision Hydrometer Jar Thermometer when checking the ABV of spirits.

CERTIFICATION:

Comes with a serial number to help keep records of accuracy checks. We can supply these with works certificates showing that the thermometers have been tested and are reading accurately. Alternatively, it is simple to check your own thermometers using one of our reference thermometers (see page 24). These spirit-filled thermometers are not suitable for UKAS certification if they will be in constant use, but if stored carefully can be used as a reference thermometer.

USE WITH:

If you are using our precision hydrometer jar thermometers, then an 80mm diameter jar will let you keep the thermometer in the jar while you take your hydrometer readings. This will give you the most accurate temperature readings. If you are using a narrower jar, then you will need to take the thermometer out of the jar while you take the hydrometer reading. In this case, you should take thermometer readings before and after the hydrometer reading to ensure the temperature is stable. Suitable jars are on page 17.

Use a suitable chart or set of tables (see page 16) to correct your hydrometer readings.

ALSO CONSIDER:

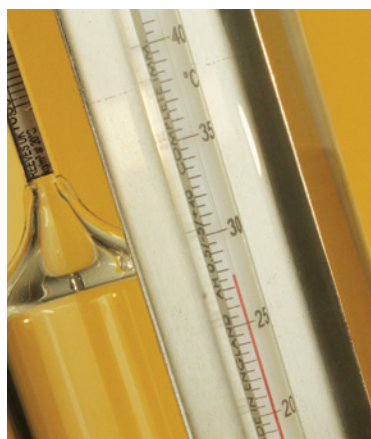
Our more accurate electronic thermometers are also suitable for use with alcohol hydrometers – look for thermometers with better than 0.5°C accuracy, marked 4* or 5*.

If you want the most accurate temperature measurement when checking spirits, then you should use one of our most precise electronic thermometers. These are available on page 24. The Reference Thermometer is accurate to 0.05°C.

USING GLASS THERMOMETERS

Always store glass thermometers at an angle with the bulb lower than the top of the thermometer. If they are left lying flat, then the spirit column can split causing an incorrect reading.

When taking any thermometer reading, please be patient! It can take a while for the thermometer to reach the same temperature as the liquid it is put in, so leave it for a while to make sure the reading is stable.



TEMPERATURE MEASUREMENT

LAB QUALITY DIGITAL THERMOMETERS WITH LUMBERG PROBES (T-TYPE OR THERMISTOR)

Range: -200°C to +400°C with 0.1°C resolution

Accuracy: $\pm 0.5^\circ\text{C}$ between -50°C and 150°C

Accuracy: ★★★★★

These are highly accurate electronic thermometers with interchangeable probes. The thermometer body is robust and waterproof, and the probes attach using a waterproof Lumberg connector which screws securely to the thermometer. The probes can be either Thermistor or type T thermocouple. These have a range and accuracy ideal for use in breweries or distilleries.

COMPLETE THERMOMETER WITH 1M PROBE

Use these for taking temperature measurements in large vessels such as your mash tun or fermenting vat. This thermometer comes with a 1 metre long probe on a 2m long coiled cable. The probe has a rounded tip with a reduced size for faster readings.

PRODUCT CODE: B0375

PRICE: £250.00

SPARE PROBES

The two shorter probes in 130mm and 300mm lengths use thermistor probes for greater accuracy ($\pm 0.4^\circ\text{C}$) – ideal for use with any of our saccharometers or alcohol hydrometers. The two longer probes use type T thermocouple probes for faster response times when testing in tanks and vats. Long probes have rounded ends for use in liquids rather than sharp points for penetrating solids.

Product Code	Length	Price
B0376/P130	130mm	£43.50
B0376/P300	300mm	£58.00
B0376/1M	1 metre	£155.00
B0376/2M	2 metre	£195.00

THERMOMETER UNIT ONLY

This is a waterproof thermometer without any probes. It can be used with any of our Thermistor or type T probes which connect to it using a Lumberg connector.

PRODUCT CODE: B0375/T22P PRICE: £100.00



BREWERS:

Ideal for use in large vessels.

DISTILLERS:

Ideal for use in large vessels.

CERTIFICATION:

Comes with a manufacturer's certificate of conformance. Suitable for UKAS certification. Alternatively, it is simple to check your own thermometers using one of our reference thermometers (see page 24).

USE WITH:

Used with the long probes, this thermometer is ideal for use in various tanks and vessels around a brewery or distillery – check your mash, wort or fermentation temperatures using these.

Used with the short probes, this thermometer is ideal for checking temperatures when taking hydrometer or saccharometer readings. Use a suitable chart or set of tables (see page 16) to correct your hydrometer readings.

ALSO CONSIDER:

If you already have probes or thermometer with green cables and 2-pin plugs, these are type K probes. They are not as accurate, but if you want a compatible thermometer and probes see page 22.

With electronic thermometers the total system accuracy comes from variations in both the probe and the electronics. With these thermometers, the electronic thermometer box has an accuracy of $\pm 0.2^\circ\text{C}$, with the rest of the uncertainty coming from the probe.

PROTECTIVE CASE

Rubber case with stand and magnet so that you can place the thermometer on a flat surface or attach it to a steel surface.

PRODUCT CODE B0375/SB

PRICE: £14.00



GENERAL PURPOSE DIGITAL THERMOMETERS WITH K-TYPE PROBES

Range: -100 to +1372°C with 0.1°C resolution

Accuracy: $\pm 2.0^\circ\text{C}$ between -40 and $+150^\circ\text{C}$

Accuracy: ★★★★★

These are general purpose electronic thermometers with interchangeable probes. The thermometer body is robust and waterproof, and the probes simply plug into the thermometer using a 2-pin mini plug connector. Use these if you need compatibility with other type K thermometers or probes.

COMPLETE THERMOMETER WITH 1M PROBE

Use these for taking temperature measurements in large vessels such as your mash tun or fermenting vat. This thermometer comes with a 1 metre long probe on a 2m long coiled cable. The probe has a rounded tip with a reduced size for faster readings.

PRODUCT CODE: B0370

PRICE: £210.00

SPARE PROBES

The two shorter probes in 130mm and 300mm lengths use high accuracy probes for greater accuracy ($\pm 1.0^\circ\text{C}$) – suitable for use with saccharometers. The two longer probes use standard type K thermocouple probes for use in a wide range of temperatures.

Product Code	Length	Price
B0373/P130	130mm	£37.00
B0373/P300	300mm	£50.00
B0371	1 metre	£125.00
B0372	2 metre	£180.00

THERMOMETER UNIT ONLY

This is a waterproof thermometer without any probes. It can be used with any type K probe with a 2-pin mini plug connector.

PRODUCT CODE: B0370/TW

PRICE: £90.00

PROTECTIVE CASE

Rubber case with stand and magnet so that you can place the thermometer on a flat surface or attach it to a steel surface.

PRODUCT CODE B0375/SB

PRICE: £14.00



BREWERS:

Ideal for use in large vessels.

DISTILLERS:

Ideal for use in large vessels.

CERTIFICATION:

Comes with a manufacturer's certificate of conformance. Suitable for UKAS certification. Alternatively, it is simple to check your own thermometers using one of our reference thermometers (see page 24).

USE WITH:

Used with the long probes, this thermometer is suitable for use in various mash tuns, fermenting vessel or other large tanks and vats around the brewery or distillery.

Used with the short probes, this thermometer is suitable for checking temperatures when taking saccharometer readings. Use a suitable chart or set of tables (see page 16) to correct your readings. Not suitable for use with alcohol hydrometers for determining spirit strength.

ALSO CONSIDER:

While they are very common and reliable, type K thermocouple probes are the least accurate electronic thermometer technology. If you want better accuracy, you will need a thermometer with thermistor or type T thermocouple probes – see page 21.

When taking any thermometer reading, please be patient! It can take a while for the thermometer to reach the same temperature as the liquid it is put in, so leave it for a while to make sure the reading is stable. Larger probes take longer to reach a stable temperature due to their thermal mass.

130mm probes should reach a stable reading in around 30 seconds, while probes that are a metre long or more can take up to two minutes to give a stable reading.

TEMPERATURE MEASUREMENT



SPIRIT SAFE THERMOMETERS

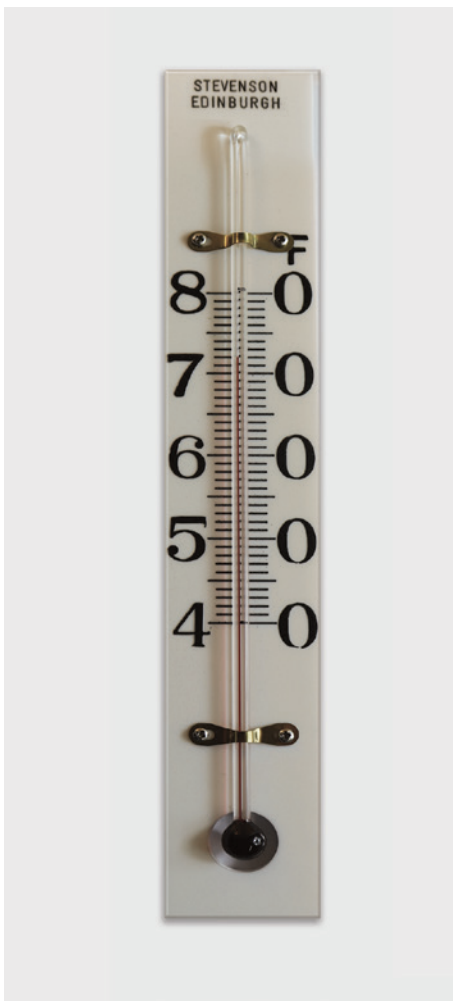
Come with serial numbers and are suitable for works certification.

Use these in a traditional Scotch Whisky Spirit Safe. They have a clip at the back for mounting onto the spirit safe tube, and durable engraving which will not fade.

ACCURACY: ★★★★★

PRICE: £60.00

Product Code	Temperature Range
B0546/1	0 to 45°C in 1.0°C
B0546/2	0 to 60°C in 1.0°C
B0546/3	0 to 80°C in 1.0°C



10" SAMPLE CUP THERMOMETERS

Come with serial numbers and are suitable for works certification.

Measuring 10" long by 1" wide, these are replacement thermometers for use in metal sample cups used for testing samples from tanks and vats. The glass thermometer tubes, filled with a non-toxic liquid are attached to a plastic back, which has the scale engraved on it.

ACCURACY: ★★★★★

PRICE: £64.00

Product Code	Temperature Range
B0415	40 to 80°F in 2.0°F
B0420	5 to 28°C in 1.0°C
B0536	10 to 45°C in 1.0°C



WORKS CERTIFICATION OF GLASS THERMOMETERS

A works certificate of accuracy can be supplied with any of our new glass thermometers which have serial numbers. You can also send thermometers back to us to be retested if you do not have a suitable reference thermometer to perform your own tests. The certificate states that the thermometer is working within its specification.

PRODUCT CODE: B0500/CC

PRICE: £24.50



REFERENCE LAB THERMOMETER

Range: -5°C to +105°C in 0.2°C

Accuracy: ±0.2°C between -50°C and 150°C

Accuracy: ★★★★★

This is a 375mm long spirit filled thermometer suitable for use as a reference standard or for precision lab use. If used as a standard it should be carefully stored and only used for testing other thermometers. Available with or without UKAS certification. Uncertified thermometers are available ex stock. Please allow a 3-week lead time for UKAS certified thermometers.

Product Code		Price
B0519/3SB	No Certificate	£43.00
B0519/3UKAS	With UKAS Certificate	£133.00



REFERENCE DIGITAL THERMOMETER

Range: -200°C to +400°C with 0.01°C resolution

Accuracy: ±0.05°C between -50°C and 150°C

Accuracy: ★★★★★

This is a high accuracy PT100 digital thermometer with a 1/10th DIN probe, supplied with a 5-point UKAS Certificate of Calibration. It has a permanently attached 130mm long probe on a one metre PVC lead.

PRODUCT CODE: B0392

PRICE: £240.00

REFERENCE THERMAPEN®

Range: -200°C to +400°C with 0.01°C resolution

Accuracy: ±0.07°C between -50°C and 150°C

Accuracy: ★★★★★

This is a high accuracy PT100 digital thermometer, supplied with a 5-point UKAS Certificate of Calibration. It has a 108 mm long probe, that conveniently folds back into the side of the instrument when not in use. Suitable for UKAS certification.

PRODUCT CODE: B0394

PRICE: £140.00

UKAS CERTIFICATES FOR REFERENCE THERMOMETERS

If you need to renew the UKAS certification for your reference thermometers, we provide UKAS calibration certificates with corrections at 5 points.

PRODUCT CODE: B0300/UKAS

PRICE: £90.00



TEMPERATURE MEASUREMENT



INTEGRATED PROBE DIGITAL THERMOMETERS



PRECISION DIGITAL THERMOMETER

Range: -50°C to +300°C with 0.1°C resolution
Accuracy: $\pm 0.4^\circ\text{C}$ between -50°C and 200°C

Accuracy: ★★★★★

This precise digital thermometer has a 100mm penetration probe attached by a 300mm lead. Comes with a manufacturer's certificate of conformance. Suitable for UKAS certification.

PRODUCT CODE: B0365/TT2

PRICE: £100.00



PRECISION DIGITAL THERMOMETERS WITH PT100 PROBES

Range: -200°C to +400°C with 0.1°C resolution
Accuracy: $\pm 0.35^\circ\text{C}$ between -50°C and 150°C

Accuracy: ★★★★★

Use this thermometer when you need the highest accuracy – for example when testing the strength of spirits using a hydrometer. It comes with a 130mm long platinum resistance PT100 Class A liquid probe. Probes are replaceable, and other sizes of probe can be made to order. Suitable for UKAS certification.

PRODUCT CODE: B0390

PRICE: £173.00



FOLDING PROBE DIGITAL THERMOMETER

Range: -50°C to +300°C with 0.1°C resolution
Accuracy: $\pm 0.4^\circ\text{C}$ between -50°C and 200°C

Accuracy: ★★★★★

This accurate pocket digital thermometer has a 108mm long folding probe. Comes with a manufacturer's certificate of conformance. Suitable for UKAS certification.

PRODUCT CODE: B0362/TP

PRICE: £44.00



POCKET DIGITAL THERMOMETER

Range: -50°C to +300°C with 0.1°C resolution

Accuracy: $\pm 0.4^\circ\text{C}$ between -50°C and 200°C

Accuracy: ★★★★★

This general-purpose pen-type pocket digital thermometer is waterproof, and suitable for a variety of situations, as long as you do not need a long probe or traceable certification. The penetration probe is 120mm, and the probe cover can be used as a handle, making the total reach of the thermometer 320mm.

PRODUCT CODE: B0360/WP

PRICE: £19.50



CELLAR THERMOMETER

This beer cellar thermometer is red spirit filled and has a moulded plastic frame. The range covered is -20 to +50°C (0 to 120°F) with ideal cellar temperature highlighted at 12°C (54°F). Can be printed with your name and logo for orders of 500 or more.

PRODUCT CODE: B0471

PRICE: £5.00