# 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:  $\pm 0.5$ °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 ( $\pm 0.4^{\circ}$ 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





#### **BRFWFRS:**

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





Range: -100 to +1372°C with 0.1°C resolution Accuracy: ±2.0°C between -40 and +150°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°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





#### **BRFWFRS:**

Ideal for use in large vessels.

### **DISTILLERS:**

Ideal for use in large vessels.

#### **CFRTIFICATION:**

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.

