

## UBC1051 Sub Zero Block Calibrator

The UBC1051 Block Calibrator is designed to check the accuracy of temperature sensors and thermometers at lower temperatures. Its compact size means true portability, even to the tight corners of your plant.

Simply insert your temperature probe into one of the interchangeable sleeves and put it in a pocket of the metal block. Set the temperature on the digital controller, then wait a short time the block to stabilise at the set temperature. A stability indication light, shows when it has stabilised at temperature after an adjustable duration.

Probe readings can either be compared to the measured temperature on the built-in display or, for the highest accuracy, compared against a calibrated reference thermometer standard inserted in the block. It also features a test circuit and buzzer for accurately checking thermostat switching temperatures.

The UBC1051's compact size, versatility, competitive cost, and yet high accuracy, make it ideal for use as part of your quality and traceability regime in the factory or the laboratory.

### Specification

Based on 20°C (68°F) ambient temperature.

**Range:** -30 to +125°C ( -22°F to 257°F\* )  
(cools to 50°C below ambient, limited to -40°C)  
*A special version for -40°C / 60 B.A. is also available on request.*

**Accuracy:** ±0.25°C

**Stability:** Block: ±0.05°C, Display: ±0.1°C

**Hole-to-hole Uniformity:** 0.30°C ( / ±0.15°C)

**Partial Immersion (20mm back) :** 0.30°C ( / ±0.15°C)

**Heating time:** Ambient to 100°C stabilised 12 minutes

**Cooling time:** Ambient to -15°C stabilised 12 minutes  
Ambient to -30°C stabilised 35 minutes

**Well depths:** 100mm (4") (92mm in block)

**Body Size:** 225 x 105 x 270mm (310mm with handle)  
(WxHxD)

**Weight:** 3.9kg (8.6lbs) unit only, <5kg (11lbs) with accessories

**Operating environment:** 5 to 35°C, 25-85%RH (non-condensing), indoors. **Warranty:** 2 year

**Power:** 230Vac ±15% / 115Vac ±15%, 120W, 50/60Hz (automatic),  
via an IEC C13 inlet, supplied with detachable UK power lead.  
(Other leads are available, there may be an additional charge)

**Certification:** UKAS (ISO17025) calibration and thermal survey optional at extra cost.

**Carry Case:** Foam lined black plastic case included in the Standard Kit.  
Size: 460 x 390 x 150mm (WxDxH)

Specification based on two 3mm probes in 3.2mm sleeves at full immersion. \* Temperature Scale (°C/°F) cannot be changed by the user.  
† The AC operating voltage can easily be changed, by a competent person, by removal and reorientation of the fuse holder/voltage selector.  
This datasheet applies to the current model only, for information on units purchased previously please contact us. Mismatching of the operating voltage may cause damage to the unit that is not covered by the warranty. Prices exclude VAT and carriage. Price correct at the time of publication. Price and specification subject to change without notice.

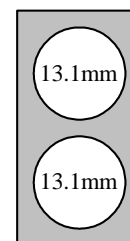


**£2,780**  
Standard Kit

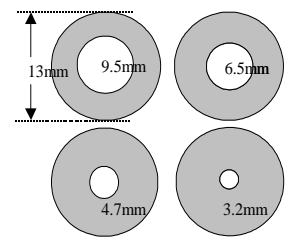
### Calibration Block Configuration

The UBC1051's block has two 13.1mm pockets which take interchangeable sleeves. In the Standard Kit are the sleeves: 3.2mm, 4.7mm, 6.5mm, 9.5mm.

#### Block Size



#### Kit Sleeve Sizes



Other sizes are also available.

**Optional UKAS Calibration (at TMS standard points) +£250**



The calibration of the block calibrator in both wells at 4 temperatures: -28, -10, 60 and 110°C at full and partial immersion. Lead time is typically 6 to 10 days (on top of availability of the block calibrator). For calibration at different temperature points, additional survey points, in a specified well (or wells), please contact us for a price.

TMS Europe Ltd is a UKAS accredited calibration laboratory No. 0461. We are ISO 17025 accredited for calibration on site and in our laboratory, as defined in our Schedule Of Accreditation ( see [www.tmseurope.co.uk/soa](http://www.tmseurope.co.uk/soa) ).

**Block Calibrator range from TMS Europe**

<b>H O T</b>				
	<b>BC 2001 350 °C</b>	<b>UBC 2001 350 °C</b>	<b>UBC 2010 500 °C</b>	<b>UBC 2020 500 °C</b>
	Multi-Well (Choice of fixed block)	1x Interchangeable Small Sleeve	1x Interchangeable Large Sleeve	2x Interchangeable Small Sleeves
	'Block 1' Build 	13.1mm 	19.5mm 	2x 13.1mm 
	2.2, 3.2, 4.7, 5.1, 6.2mm	3.2mm	6.3mm 3.2mm	3.2mm 6.2mm
<b>C O L D</b>				
	<b>UBC 1021 -10 to +110 °C</b>	<b>UBC 1001 -15 to +125 °C</b>	<b>UBC 1051 -30 to +125 °C</b>	2x Interchangeable Small Sleeves From ambient of 20°C



TMS Europe Ltd was established in 1979 and has designed and manufactured block calibrators in the UK since 1999.



**After Sales Service & Warranty**

Each unit has a 2 year return to base warranty against manufacturing defects from the date of purchase from TMS Europe and covers normal use of the unit in accordance with its instruction manual.

It does not cover excessive 'wear and tear', stuck probes or damage caused by liquid or oil ingress or incorrect supply voltage selection. Under the warranty any manufacturing defects will be rectified by TMS Europe at no charge. 'Return to base' means the customer is responsible for return of the unit to TMS Europe's site (Derbyshire, UK) for assessment with a view to repairing under warranty.

For any work performed that is solely covered by the warranty TMS Europe will provide return shipment of the unit within the UK and Republic of Ireland at no charge. Whilst TMS Europe stocks a range of spares and aims to resolve any warranty repairs quickly, typically within 3 - 8 working days, the warranty does not guarantee this or any provision of a loan unit while the customer's unit is with us.

**TMS Ref-Therm Thermometers**



3mm probe reference thermometers with 0.01° resolution. With UKAS calibration at multiple points, including: -18, 0, 70, 100, 120, 165°C.

*An external reference standard can be sent away for calibration, separate from the block calibrator, to save time.*

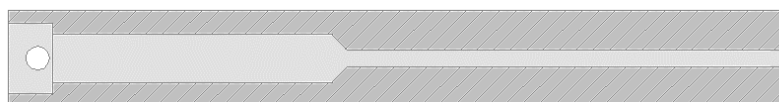
## TMS Block Calibrator Small Sleeves

We manufacture a range of sleeve inserts for use in our UBC ranges of dry well block calibrators. These are normally available from stock. All our HT coded high temperature sleeves listed below are anodised aluminium suitable for use up to 500°C in TMS dry well block calibrators. Other sleeves with bespoke sizes may also be available on request, with single prices from £140 and typical lead time being 4-8 weeks. Unanodised 'blank' sleeves can also be supplied to customers equipped to perform their own precision machining and anodising.

### Small Sleeves For UBC2001, UBC1001, UBC1021, UBC1051, UBC2020.

TMS Stock Code	Short Code	Intended Probe Diameter		Sleeve Diameter ID (Inside)	Sleeve Length Well	Price Each
		Metric	Imperial			
BLKUNS-S2HT*	S2HT	2mm, 1.5mm	1/16"	2.2mm (6.5mm)*	60mm (40mm)*	£50
BLKUNS-S3HT	S3HT	3mm	-	3.2mm	100mm	£40
BLKUNS-S3PHT	S3PHT	-	1/8"	3.5mm	100mm	£50
BLKUNS-S42HT	S42HT	4.0mm	5/32"	4.2mm	100mm	£50
BLKUNS-S4HT	S4HT	4.5mm	-	4.7mm	100mm	£40
BLKUNS-S5PHT	S5PHT	-	3/16"	5.1mm	100mm	£50
BLKUNS-S5HT	S5HT	5mm	-	5.2mm	100mm	£50
BLKUNS-S6HT	S6HT	6mm	1/4"	6.5mm	100mm	£40
BLKUNS-S7HT	S7HT	7mm	-	7.2mm	100mm	£50
BLKUNS-S8HT	S8HT	8mm	5/8"	8.4mm	100mm	£40
BLKUNS-S9HT	S9HT	9mm	-	9.5mm	100mm	£40
BLKUNS-S10HT	S10HT	10mm	3/8"	10.2mm	100mm	£60

\* S2HT has a shorter length for its specified main diameter. Cross-section:



(Outside Diameter of Small Sleeves is 13mm, Total Sleeve Length is 106mm.)

(Large Sleeves are also available for use in the UBC2010. Small Sleeves can be used with the UBC2010 in conjunction with an L13HT sleeve as an adaptor.)

### Small Sleeve Packs

	Containing	TMS Stock Code	Price Total
Pack of 4 Small Sleeves	S3HT, S4HT, S6HT, S9HT	BLKUNS-KS1HT	£130 <i>(Included in the Standard Kit of some models.)</i>
Pack of 6 Small Sleeves	<b>2x S3HT</b> , 1x S4HT, 1x S6HT, 1x <b>S8HT</b> , 1x S9HT	BLKUNS-KS2HT	£180 <i>(+£50 upgrade from the Standard Kit of some models.)</i>

