

UBC2001 (MkIII) Block Calibrator

The UBC2001 (MkIII / 'Mark 3') Dry-well Block Temperature Calibrator is designed to check the accuracy of temperature sensors and thermometers. Its hand-held size means true portability, even to the tightest corner of your plant.

It's simple and convenient to use and even at 350°C its stainless steel case is cool enough to hold in your hand. Because the UBC2001's aluminium block is fan assisted it heats, cools and stabilises in minutes - much quicker than many larger block calibrators. The UBC2001's compact size, low cost and versatility make it ideal for use as part of your quality and traceability regime.



£1080
Standard Kit

The UBC2001 is constructed with an aluminium block with a main well (hole/pocket), which takes interchangeable Small sleeves in a wide range of popular probe sizes. The block also has a reference well, so if required, it can be used as a heat source reference, for comparison against an external standard (rather than the built-in display), in conjunction with a thermal uniformity survey of the block. Since the block is fixed, the block cannot be changed by the user or modified for another block (only the sleeves are interchangeable). A stability indication light shows when it has stabilised at temperature after an adjustable duration.

An optional extra feature of a test circuit and buzzer can be fitted, for accurately checking thermostat switching temperatures (both Normally Open and Normally Closed types via different connections).

If higher accuracy is required, see our BC2001 which has a single fixed block. For higher accuracy with sleeves or higher temperatures, see our UBC2020, which also takes interchangeable Small sleeves. For higher temperatures and larger probes, see our UBC2010, which takes interchangeable Large sleeves.

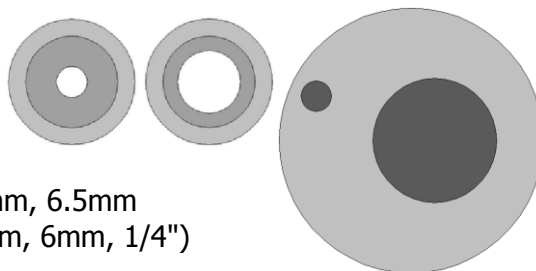
General Specification

- Range:** 30°C* to 350°C (86°F to 662°F [†]) * From 10°C above ambient temperature.
- Heating Time:** 20°C to 350°C 15 minutes, plus 4 minutes stabilisation time (19 minutes total)
- Cooling Time:** 350°C to 70°C 21 minutes
- Size:** Body: 120mm x 50mm x 160mm, Extremities: 140 x 60 x 190mm (without lead)
(WxHxD) (Body: 5" x 2" x 6.5" approx., Extremities: 5.5" x 2.4" x 8" approx.)
- Weight:** 1.3kg (2.9lbs) unit only, 2.6kg (5.6lbs) with carry case and accessories.
- Supply Voltage:** Dual Voltage Selectable: 240V or 110V in 1 model, selected via a switch.
230/115Vac ±15%, 50/60Hz, 170W max. Supplied by default with UK 13A (BS1363) plug lead.
The detectable lead connects via an IEC 60320 C14 inlet. Other leads are available at additional cost:
EU (CEE7/7): £5 / €5. 110V 16A round yellow (IEC60309): £5. USA (NEMA 5-15P): £5 / \$5.
- Certification:** UKAS (ISO17025) Calibration & Thermal Survey optional at extra cost.
- Carry Case:** Standard Kit includes a foam lined black plastic case. 300 x 130 x 350mm (WxHxD)
- Warranty:** 2 years (details on last page)

This datasheet applies to the current model only, for information on units purchased previously please contact us. [†] Temperature Scale (°C/°F) cannot be changed by the user. Prices exclude VAT and carriage. Price correct at the time of publication. Price and specification subject to change without notice.

Block Specification

		UBC2001 (MkIII)
Accuracy: With built-in display. For Main Well only.	30 to 180 °C	± 0.3°C (±0.54°F)
	181 to 280 °C	± 0.5°C (±0.9°F)
	281 to 350 °C	± 0.7°C (±1.26°F)
Stability:	30 to 180 °C	± 0.1°C (±0.18°F)
	181 to 280 °C	± 0.2°C (±0.36°F)
	281 to 350 °C	± 0.3°C (±0.54°F)
Radial (Well-to-well) Uniformity: (Only if using probe comparison method.)	30 to 180 °C	0.9°C (/ ± 0.45°C)
	181 to 280 °C	1.4°C (/ ± 0.7°C)
	281 to 350 °C	1.8°C (/ ± 0.9°C)
Partial Immersion Uniformity: (At 20mm back.)	30 to 180 °C	0.4°C (/ ± 0.2°C)
	181 to 280 °C	0.8°C (/ ± 0.4°C)
	281 to 350 °C	1.2°C (/ ± 0.6°C)
Block Details: Main Well: 13.1mm dia. Reference Well: 3.2mm dia. Depth: 100mm (4") Standard Kit Sleeves ID: 3.2mm, 6.5mm (for common probes sizes 3mm, 6mm, 1/4")		



Ordering Codes:

TMS Stock Code: UBC2001/DV/C

= Variant code: UBC2001M3/DV/C

= UBC2001 (MkIII), 240/110V Selectable, °C (no buzzer test circuit).

Model & Mark:	Voltage Build:	Temperature Scale:	Other Build Options:
UBC2001M3	DV = 240/110V Selectable	C = °C	
	240 = 240V only	F = °F	/B = buzzer test circuit
	110 = 110V only		

† Temperature Scale (°C/°F) cannot be changed by the user.

Standard Kit **£1080**

The Standard Kit includes the block calibrator (& ancilleries), carry case, and 2 sleeves: S3HT, S6HT.

+2 Extra Sleeves S4HT, S9HT option. +£40 (Special price, only when ordered with Standard Kit.)
(Matching the sleeves of the previous MkII generation.)

Block Calibrator with choice of sleeves

Includes the block calibrator (& ancilleries). Carry case (optional). Choice of sleeve(s), see the last page or contact us with your requirements.

Differences in MkIII from MkII

- Larger display and buttons.
- Improved accuracy and uniformities.
- Faster cooling. Slower heating.
- Quieter fan (when not cooling).
- Dual Voltage build option.
- All stainless steel construction.
- Improved buzzer thermostat test circuit, now optional.

Buzzer Thermostat Test Circuit option +£40

An optional extra feature of a test circuit and buzzer can be fitted, for accurately checking thermostat switching temperatures (both Normally Open and Normally Closed types via different connections). The user sets a slow ramp rate for gradual temperature change. The buzzer then sounds when the thermostat switches.

Optional UKAS Calibration (at TMS standard points) +£240

The calibration of the block calibrator in 1 well at 3 temperatures: 60, 150 and 300°C at full and partial immersion, and 1 survey of all wells at 150°C. 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).

Block Calibrator range from TMS Europe

H O T				
	BC 2001 350 °C	UBC 2001 350 °C	UBC 2010 500 °C	UBC 2020 500 °C
	Multi-Well (Choice of fixed block)	1x Interchangeable Small Sleeve	1x Interchangeable Large Sleeve	2x Interchangeable Small Sleeves
	Block 1B Build (default) 2.2, 3.2, 4.7, 5.1, 6.2mm	13.1mm 3.2mm	19.5mm 6.3mm 3.2mm	2x 13.1mm 3.2mm 6.2mm
C O L D				
	UBC 1021 -10 to +110 °C	UBC 1001 -15 to +125 °C	UBC 1051 -30 to +125 °C	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. Right-angled probes are also available.

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

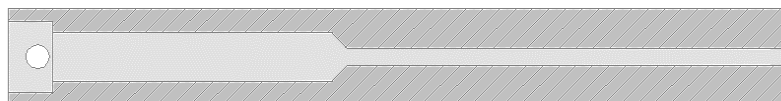
TMS Block Calibrator Small Sleeves

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 £180 and typical lead time being 5-10 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 Metric	Imperial	Sleeve Diameter ID (Inside)	Sleeve Length Well	Price Each
BLKUNS-S2HT*	S2HT	2mm, 1.5mm	1/16"	2.2mm (6.5mm)*	60mm (40mm)*	£60
BLKUNS-S3HT	S3HT	3mm	-	3.2mm	100mm	£40
BLKUNS-S3PHT	S3PHT	3.3mm	1/8"	3.5mm	100mm	£60
BLKUNS-S42HT	S42HT	4.0mm	5/32"	4.2mm	100mm	£60
BLKUNS-S4HT	S4HT	4.5mm	-	4.7mm	100mm	£40
BLKUNS-S5PHT	S5PHT	-	3/16"	5.1mm	100mm	£60
BLKUNS-S5HT	S5HT	5mm	-	5.2mm	100mm	£60
BLKUNS-S62HT	S62HT	6mm	-	6.2mm	100mm	£60
BLKUNS-S6HT	S6HT	6mm	1/4"	6.5mm	100mm	£40
BLKUNS-S7HT	S7HT	7mm	-	7.2mm	100mm	£60
BLKUNS-S8HT	S8HT	8mm	5/8"	8.4mm	100mm	£40
BLKUNS-S9HT	S9HT	9mm	-	9.5mm	100mm	£40
BLKUNS-S97HT	S97HT	9.5mm	3/8"	9.7mm	100mm	£60
BLKUNS-S10HT	S10HT	10mm	-	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.)

Quantity Discounts

2 sleeves	10% off
3 sleeves	15% off
4,5 sleeves	20% off
6+ sleeves	25% off

(Any combination of standard
Small & Large sleeves.)

