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Certificate Number 351

UBC2020 Block Calibrator

A portable Block Calibrator with dual interchangeable inserts to fit probes from 13mm to 1.5mm.

The UBC2020 Block Calibrator uses dual interchangable sleeve inserts to fit a range of popular temperature sensor probe and thermostat diameters. The two main pockets are 13.1mm in diameter for a range of small sleeves to fit various small diameter probes. The convenient size of the UBC2020 means true portability.

Simply set the temperature, and the fan-assisted aluminium block will heat and stabilise at the setpoint within minutes. A stability indication light shows when it has stabilised at temperature after an adjustable duration. It also features a test circuit and buzzer for accurately checking thermostat switching temperatures.

£2,080
Standard Kit

Its competitive price, accuracy and versatility make it at home in the factory, quarry or commercial premises that requires checking or validation of temperature equipment.

Specifications

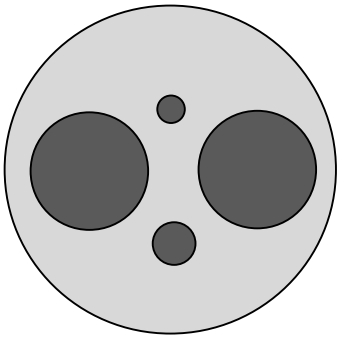
Range:	50°C to 500°C	(122°F to 932°F*)
Accuracy: (Main wells, built-in display.)	50°C to 180°C	± 0.25°C
	180°C to 280°C	± 0.40°C
	280°C to 380°C	± 0.60°C
	380°C to 500°C	± 0.80°C
Well-to-Well Uniformity: (All wells.)	50°C to 180°C	0.4°C (/ ±0.2°C)
	180°C to 280°C	0.8°C (/ ±0.4°C)
	280°C to 500°C	1.2°C (/ ±0.6°C)
Partial Immersion Uniformity: (At 20mm back.)	50°C to 180°C	0.6°C (/ ±0.3°C)
	180°C to 280°C	1.0°C (/ ±0.5°C)
	280°C to 500°C	1.6°C (/ ±0.8°C)
Stability: (With built-in display.)	50°C to 350°C	± 0.10°C
	350°C to 500°C	± 0.25°C

Block

(Fixed build.)

Main Wells:
2x 13.1mm

Reference Wells:
3.2mm, 6.2mm



Small Sleeves / Inserts

Standard: 3.2mm, 4.7mm, 6.5mm, 9.5mm
Additionally, a range of sizes are offered for probes from 10mm to 1.5mm. (See page 3)

Heating Time: 20°C to 500°C 14 minutes, plus 4 minutes stabilisation time (18 minutes total)
Cooling Time: 500°C to 100°C 32 minutes 500°C to 70°C 42 minutes (in 20°C ambient)
Well Depths: 100mm (4") **Weight:** 3.75kg (Without sleeves)
Body Size: 225mm x 105mm x 270mm (310mm with handle) (WxHxD)
Ambient operating temperature: 0 - 35°C **Warranty:** 2 years
Power: 230Vac ±15% 2.5A, or 115Vac ±15% 5.5A (changeable†), 50/60Hz, via an IEC C13 inlet, supplied with UK power lead. <650W. (Other leads are available at additional cost.)
Certification: UKAS (ISO17025) Calibration & Thermal Survey optional at extra cost.
Sleeves/Inserts: In the Standard Kit are the sleeves: 3.2mm, 4.7mm, 6.5mm, 9.5mm.
Carry Case: Foam lined black plastic case included in the Standard Kit. 460 x 390 x 150mm (WxDxH)

Prices exclude VAT and carriage. Price correct at the time of publication. Price and specification subject to change without notice. Sleeves from previous models or those not designed for the unit may discolour or deteriorate above 400°C.
* Temperature Scale (°C/°F) cannot be changed by the user. A version operating in °F is available on request.
† The operating voltage can easily be changed, by a competent person, by removal and reorientation of the fuse holder/voltage selector. Mismatching of the operating voltage may cause damage to the unit that is not covered by the warranty.

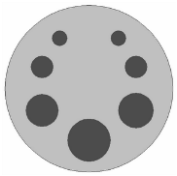
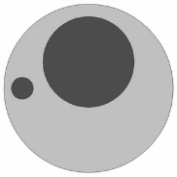
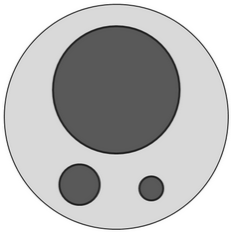
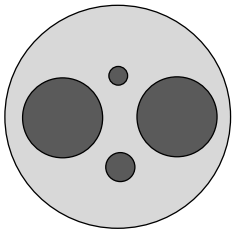
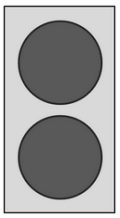
Optional UKAS Calibration (at TMS standard points) +£220

The calibration of the block calibrator in 1 well at 3 temperatures: 80, 280 and 480°C at full and partial immersion, and 1 survey of all wells at 280°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.

UKAS CALIBRATION 0461

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

HOT				
	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 1' Build  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
COLD				 13.1mm 13.1mm 2x Interchangeable Small Sleeves
	UBC 1021 -10 to +110 °C	**UBC 1001** -15 to +125 °C	**UBC 1051** -30 to +125 °C	*From ambient of 20°C*

MADE IN BRITAIN

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

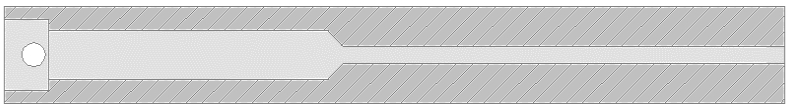
We manufacture a range of sleeve inserts for use in our UBC ranges of dry well block calibrators. These are normally available from stock. All our HT coded high temperature sleeves listed below are anodised aluminium suitable for use up to 500°C in TMS dry well block calibrators. Other sleeves with bespoke sizes may also be available on request, with single prices from £150 and typical lead time being 4-8 weeks. Unanodised 'blank' sleeves can also be supplied to customers equipped to peform their own precision machining and anodising.

Small Sleeves

For UBC2001, UBC1001, UBC1021, UBC1051, UBC2020.

TMS Stock Code	Short Code	Intended Probe Diameter Metric	Intended Probe Diameter 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	-	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 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
		(Included in the Standard Kit of some models.)	
Pack of 6 Small Sleeves	**2x S3HT**, 1x S4HT, 1x S6HT, 1x **S8HT**, 1x S9HT	BLKUNS-KS2HT	£180
		(+£50 upgrade from the Standard Kit of some models.)