

BC2001 (MkII) Block Calibrator

The BC2001 (MkII) Block 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 BC2001's aluminium block is fan assisted it heats, cools and stabilises in minutes - much quicker than many larger block calibrators. A stability indication light, shows when it has stabilised at temperature after an adjustable duration. The BC2001's compact size, low cost, and yet high accuracy make it ideal for use as part of your quality and traceability regime in the factory or the laboratory.



£980
(Block 1 Build)

The BC2001 is constructed with a single fixed aluminium block with a number of wells (holes/pockets). The default build, Block 1, has wells with a variety of common probe sizes and is typically available from stock or on a short lead-time. Units with Other Build Options are built when ordered and are generally 2-4 weeks lead-time. Special Build Options are longer, contact us for more details. Since the block is fixed, the block cannot be changed by the user or modified for another block. If more versatility is required, see our UBC2001, UBC2020, and UBC2010 models which take interchangeable sleeves in a wider range of popular probe sizes.

General Specifications

- Range:** 35°C* to 350°C (95°F to 662°F †) * From 15°C above ambient temperature.
- Heating Time:** 20°C to 350°C 10 minutes, plus 4 minutes stabilisation time (14 minutes total)
- Cooling Time:** 350°C to 70°C 26 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:** 1.25kg (2.8lbs)
- Power:** **240V model:** 230V ac ±15%, 50/60Hz, 150W. Comes with UK 13A style plug lead.
110V model: 115V ac ±15%, 50/60Hz, 150W. Comes with 16A round yellow plug lead.
The detectable lead connects via an IEC 60320 C14 inlet. Other leads are available at additional cost.
- Certification:** UKAS (ISO17025) Calibration & Thermal Survey optional at extra cost.
- Carry Case:** Foam lined black plastic case included as standard. Size: 300 x 130 x 350mm (WxHxD)
- Warranty:** 2 years

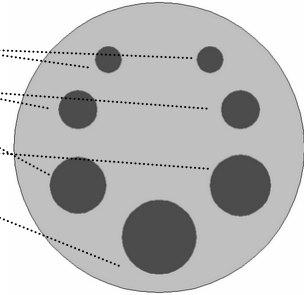
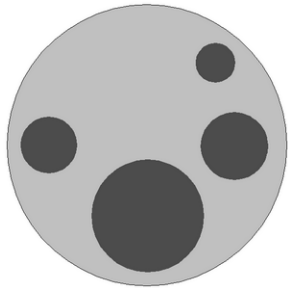
Ordering Codes

Block Build:	Voltage:	Temperature Scale:
1	240	C
2	110	F

Example: BC2001/1/240/C is Block 1, 240V, °C.

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

Block Specifications

		Block 1 (MkII) Build (default)		Block 2 Other Build Option (Built when ordered)	
		<u>100mm Deep Wells</u>	<u>80mm Deep Wells</u>		
Accuracy:- (With built-in display.)	35 to 180 °C	± 0.25°C (±0.45°F)	± 0.4°C (±0.72°F)	± 0.6°C (±1.08°F)	
	181 to 280 °C	± 0.45°C (±0.81°F)	± 1.0°C (±1.80°F)	± 0.9°C (±1.62°F)	
	281 to 350 °C	± 0.65°C (±1.17°F)	± 1.3°C (±2.34°F)	± 1.4°C (±2.52°F)	
Stability:-	35 to 180 °C	± 0.10°C (±0.18°F)		± 0.2°C (±0.36°F)	
	181 to 280 °C	± 0.15°C (±0.27°F)		± 0.3°C (±0.54°F)	
	281 to 350 °C	± 0.25°C (±0.45°F)		± 0.4°C (±0.72°F)	
Radial (Well-to-well) Uniformity:	35 to 180 °C	0.3°C (/ ± 0.15°C)	0.3°C (/ ± 0.15°C)	1.4°C (/ ± 0.7°C)	
	181 to 280 °C	0.5°C (/ ± 0.25°C)	0.4°C (/ ± 0.20°C)	2.0°C (/ ± 1.0°C)	
	281 to 350 °C	0.8°C (/ ± 0.40°C)	0.5°C (/ ± 0.25°C)	2.8°C (/ ± 1.4°C)	
Partial Immersion Uniformity: (At 20mm back.)	35 to 180 °C	0.6°C (/ ± 0.3°C)	0.6°C (/ ± 0.3°C)	0.6°C (/ ± 0.3°C)	
	181 to 280 °C	1.4°C (/ ± 0.7°C)	1.2°C (/ ± 0.6°C)	1.4°C (/ ± 0.7°C)	
	281 to 350 °C	1.8°C (/ ± 0.9°C)	1.4°C (/ ± 0.7°C)	2.4°C (/ ± 1.2°C)	
Block Details:	Well Depth: 100mm (4"), except 2.2mm wells that are 80mm (3.15").		Well Depth: 100mm (4"). 3.2mm, 4.7mm, 6.3mm, 9.5mm		
		2x 2.2mm 2x 3.2mm 1x 4.7mm 1x 5.1mm 1x 6.2mm 			
For Probe Diameters:	Metric: 1.5mm, 2mm, 3mm, 4.5mm, 5mm, 6mm Imperial: 3/16"		Metric: 3mm, 4.5mm, 6mm, 9mm		
Price (ex VAT) :	£980		£1040		

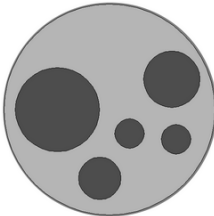
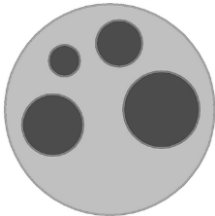
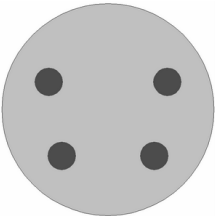
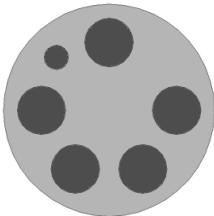
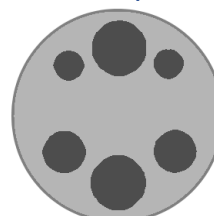
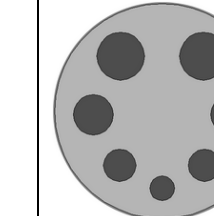
Note: Blocks are build options and are not interchangeable or rebuildable.



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. 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.



In addition to our standard blocks, over the years TMS has produced a number of customised variations for other probe size combinations. We can manufacture units with these blocks as a Special Build Option on request, with typical lead times of 4-8 weeks. Specifications with orange shading are based on partial test results or conservative estimation and are subject to confirmation. New bespoke designs of block, customised to your requirements, may also be available on request. Please contact us with your requirements for current pricing and availability.

Special Build Options		Special Block 'H'	Special Block 'L'	Special Block 'N'	Special Block 'Q'	Special Block 'T'	Special Block 'W'
Accuracy	35 - 180°C	± 0.8°C	± 0.7°C	± 0.20°C	± 0.8°C	± 0.4°C	± 0.6°C
	181 - 280°C	± 1.2°C	± 1.0°C	± 0.40°C	± 1.2°C	± 0.8°C	± 0.9°C
	281 - 350°C	± 1.8°C	± 1.6°C	± 0.60°C	± 1.8°C	± 1.4°C	± 1.5°C
Stability	35 - 180°C	± 0.2°C	± 0.10°C	± 0.20°C	± 0.20°C	± 0.20°C	± 0.20°C
	181 - 280°C	± 0.3°C	± 0.15°C	± 0.25°C	± 0.25°C	± 0.25°C	± 0.25°C
	281 - 350°C	± 0.4°C	± 0.25°C	± 0.35°C	± 0.35°C	± 0.35°C	± 0.35°C
Radial Uniformity	35 - 180°C	1.4°C (/±0.7)	1.4°C (/±0.7)	0.3°C (/±0.15)	1.4°C (/±0.7)	0.8°C (/±0.4)	0.8°C (/±0.4)
	181 - 280°C	2.2°C (/±1.1)	2.2°C (/±1.1)	0.5°C (/±0.25)	2.2°C (/±1.1)	1.6°C (/±0.8)	1.6°C (/±0.8)
	281 - 350°C	2.8°C (/±1.4)	2.8°C (/±1.4)	0.8°C (/±0.40)	2.8°C (/±1.4)	2.4°C (/±1.2)	2.8°C (/±1.4)
Partial Immersion Uniformity	35 - 180°C	0.8°C (/±0.4)	0.8°C (/±0.4)	0.6°C (/±0.3)	0.8°C (/±0.4)	0.8°C (/±0.4)	0.8°C (/±0.4)
	181 - 280°C	1.6°C (/±0.8)	1.6°C (/±0.8)	1.4°C (/±0.7)	1.6°C (/±0.8)	1.6°C (/±0.8)	1.6°C (/±0.8)
	281 - 350°C	2.4°C (/±1.2)	2.2°C (/±1.1)	1.8°C (/±0.9)	2.4°C (/±1.2)	2.2°C (/±1.1)	2.4°C (/±1.2)
Block Details: Wells are 100mm deep, unless stated otherwise. <i>Specifications exclude non-100mm deep wells, unless stated otherwise.</i> <i>Appearances may vary.</i>		2x 3.4mm, 4.9mm, 6.5mm, 9.7mm 	4.2mm, 6.2mm, 8.2mm, 10.2mm 	4x 3.2mm 	3.2mm, 5x 6.2mm 	2x 3.2mm, 2x 4.7mm, 6.2mm. <i>25mm Deep: 6.2mm</i> 	3.2mm, 2x 4.2mm, 2x 5.2mm, 2x 6.2mm 
For Probe Diameters:		Metric: 3mm, 4.5mm, 6mm Imperial: 1/8", 3/16", 1/4", 3/8"	Metric: 4mm, 6mm, 8mm, 10mm	Metric: 3mm	Metric: 3mm, 6mm	Metric: 3mm, 4.5mm, 6mm	Metric: 3mm, 4mm, 5mm, 6mm
Heating Time (total) :		14 Minutes	19 Minutes	14 Minutes	19 Minutes	14 Minutes	19 Minutes
Cooling Time :		26 Minutes	32 Minutes	26 Minutes	32 Minutes	26 Minutes	32 Minutes

Note: Blocks are build options and are not interchangeable or rebuildable.

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



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 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
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, 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.