EiUK

Accuracy ±0.08°C
Down to ±0.08°C using our external reference sensor and special calibration with built-in reference sensor input

Excellent stability ±0.01˚C
New controller and block design

Built-in dual channel readout (TC version)
Read simultaneously external reference sensor and unit under test

Wider temperature range
PLB 150 from –32 to 140°C (from ambient)
PLB 250 from amb to 250°C

Large Calibration volume 60x170 mm
Perform even larger diameter sensor calibration

Use as Dry Block, Black Body Source or Zero Reference
Unique range of multifunctional insert to extend the range of application

Fast heating/cooling time and light weight
Save time and money

The PLB series are portable liquid baths (Portable Temperature Calibrators) designed and manufactured by EiUK, a market leader in temperature calibration. Stirred liquid baths are suitable for calibrating temperature sensors of all size and diameters an shape with-out the need of specifically drilled block. They also provide much smaller calibration uncertainty than Dry Block

PLB large calibration volume 60x170 mm make it ideal for use as Portable liquid Bath. PLB series can be converted into a Dry Block Temperature Calibrator and in conjunction with our range of multi-functional accessories they can be use as Infrared Calibrator source, Surface Temperatures Calibrators and Dry block calibrator– The Large insert 60x170 mm make it possible to calibrate multiple sensors at the same time. PLB are available in 2 different models to cover a range from –32 to 250 Deg C

	TS VERSION	TC VERSION
liquid BATH	●	●
Use as a Dry block	●	●
Removable Insert	●	●
Infrared Insert	●	●
Surface Sensor Insert	●	●
Zero Reference Insert	●	●
Multi-Holes Inserts	●	●
Dual Line Display	●	●
Digital Communication	●	●
Stand Alone thermostat testing	●	●
Configurable C, F, K	●	●
RTD's Input		●
Universal Thermocouple's Input		●
Reference Sensor Input		●
Reference sensor linearization matching		●

SENSOR UNDER TEST INPUT

The TC version is equipped with a dual input which can measure the most common Thermocouples and RTD (3-4 WIRES) sensor- It eliminate the need to carry another Thermometer in the Field for calibrating the unit under test. Direct comparison of the unit under test and the Internal or External reference sensor is visualised on the display

HIGH ACCURACY (PLB-TC-OPT-01)

The TC version is equipped with an built-in high accuracy reference input to be used in conjunction with our SRS(semi-standard PRT)- This feature allows the PTB-TC to perform calibration with an higher degree of accuracy.- It also eliminates most of the error due to Stem conduction and different load

A special 9OC angled external reference sensor is designed to accommodate calibration of sensors with transmitter head- It provide maximum clearance to the top of the calibrator-

Our SRS external reference sensors are especially designed to improve the performance of our PTB series- The size and length of the external reference sensors have been chosen to provide best performance on the PTB series- A special linearization/calibration with the built-in reference input provide maximum reading accuracy as good as 0.08 Deg C. The internal and reference sensor are independent from each other.

AUTO RAMP/STEP

Programmable AUTORAMP function is available directly from Keyboard- User can select number of cycles, minimum and maximum points and temperature gradient. The function is ideal for automatic calibration of thermo switches. An AUTO STEP function with programmable STEP value and HOLD VALUE between each SETP is also available when using PLB connected with our EIUK-CAL software

SWITCH TEST

Both the PLB-TS and PLB-TC versions are equipped with a " switch test input" which provide facility to perform automatic switch test calibration. PTB will log both the "Open"and "Close" for onsite recall and dead band calculation

CALIBRATION SOFTWARE

EiUK- CAL
TS series are supplied in the standard delivery with our Powerful EiUK-Cal software package-
Temperature Sensor Calibration both automatic and manual
Automatic Calibration routine for all type of temperature sen sors with advanced feature such reference sensor stabilization time- Calibration data are automatically populated and stored for printing calibration report- This procedure can also be ran in manual mode to allow the operator to manually enter the data- This is particular useful when calibrating Temperature device such digital thermometer or analogue thermometers
Stress Test
Simply set the MAX and MINI value and the software will run an automatic Stress Test of one single sensor or a batch-
Advance Thermostat Calibration
Simply set the open and close temperature limits, type of thermostat, type of test and T will automatically run the test- This is available on both the TC and TS version
Multiple Sensor Calibration
When use in conjunction with our ATCS system up to 58 sensors can be calibrated automatically

Technical Specifications

	PLB 150	PLB 250
Temperature Range @ 20 °C	-12 °C to 140 °C (at ambient @ 20 °C)	Amb C to 250 °C
Stability	± 0.01 °C	± 0.02 °C
Time to Stability	10 min approx	
Radial Uniformity	± 0.01 °C @ -10 °C ± 0.01 °C@ 0°C ± 0.02 °C @ 120 °C	± 0.01 °C @50 °C ± 0.03 °C @ 250 °C
Axial Uniformity (Lower 40 mm)	± 0.02 °C @ -10 °C ± 0.02 °C@ 0°C ± 0.01 °C @ 120 °C	± 0.01 °C @50 °C ± 0.02 °C @ 180 °C ± 0.03 °C @ 250 °C
Accuracy (Internal Sensor)	± 0.15 °C	± 0.15 °C
Accuracy with External SRS Reference Sensor* TC version only	± 0.08 °C	± 0.08 °C
Resolution	0.1 °C / 0.01 °C selectable	
Temperature units	C -F -K selectable	
Well Diamter	60 mm (54 mm as liquid bath)	60 mm(54 mm as liquid bath)
Immestion Depth (as Dry block)	170 mm	170 mm
Immestion Depth (as Liquid bath)	150 mm	150 mm
Heating Time (including Stability)	ambient to 120°C: 30 min	20 to 250°C: 30 min
Cooling Time (including Stability)	ambient to -10°C : 30 min	250 to 60°C: 60 min
Digital communication	RS232 (USB converter)	
Switch test Input	12 VDC	
Thermocouple Input (TC version Only)		
Type	K,N,R,S,J,E	
Range	0 C to 1300 °C	
Accuracy	± 1C Include CJC error	
Resolution	0.1 °C / 0.01 °C selectable	
RTD's Input (TC version only)		
Type	Pt100 IEC 3/4 wires	
Range	-100 C to 700 °C	
Accuracy	± 0.3 °C	
Resolution	0.1 C / 0.01 °C selectable	
Voltage	115/230± 10%, 50/60 HZ	
Power	300 W	500 W
Weight	8 Kg	8 KG
Dimensions	160x340x330 mm	160x340x330

Spefication for Stability, Huniformity and Temperature range based on use as Liquid Bath only
Specifications might change with-out prior notice
Standard Calibration certificate supplied with PLB 250 cover range from T ambient to 240 C

12 months period
*Require SRS Reference sensor and UKAS calibration for probe matching linearization((PLB-TC-OPT-01)- Accuracy do not include long term sensor drift
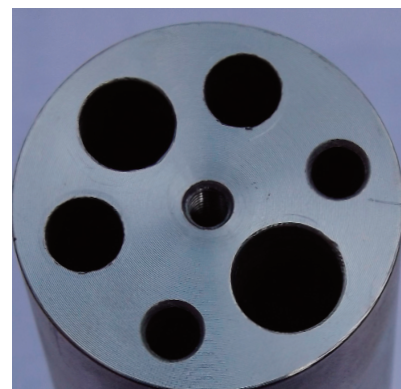
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CONVERT TO DRY BLOCK CALIBRATOR

The PLB series use can be converted to a traditional Dry Block Temperature Calibrator extending its range of application. The large calibration volume of 54x150 make it possible to calibrate multiple sensors at the same time– A range of standard pre drilled dry inserts or custom made insert are available– All the inserts are made of aluminium, dimension 60 x170 mm

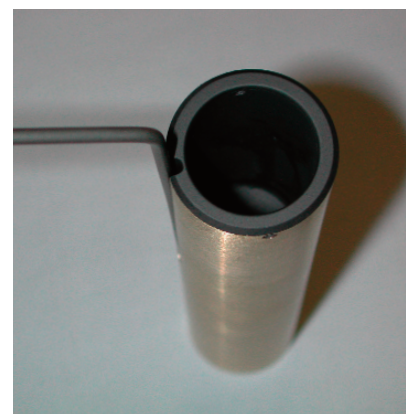| Part Number	Description
PLB-INS-01	Insert: Blank, PLB125/250- , Ø 60 x 170 mm
PLB-INS-02	Insert : PLB 150/250- Holes Ø 2 x4 –4.5–5.5–6.5–8.5–10.5–12.5mm
PLB-INS-03	Insert : PLB 150/250- Special (please contact us)

BLACK BODY TARGET

The PLB series use can be converted into an Infrared temperature calibrator by simply using the INFRARED BLACK BODY TARGET INSERT- The large well size 60 mm make it possible to calibrate Infrared thermometer with very large distance to Target to ratio with out compromising the accuracy

Each Insert is supplied with an angled Pt100 reference sensor to measure the true temperature at the bottom of the insert– The True temperature can be read directly on the Display of the TC version

Part Number	Description
PLB-INS-IR	Insert: Black Body target, PLB125/200. Size , Ø 60 x 170 mm,

REFERENCE SENSORS SRS

Our range of semi standard reference sensors (SRS) are especially designed to improve the performance of our T series- The size and length of the external reference sensors have been chosen to
These industrial platinum resistance thermometers are ideal for field and lab use. They are particularly designed for use as working standards in Dry Blocks and Liquid Baths . The 90 degree bent provide maximum clearance at the top of the calibrator allowing space for calibrating temperature sensors with head such transmitters- Size and dimensions are optimised for use with the T series series

General specifications are:
Ro 100 ohm ± 0.05 ohm (Pt 100 A Class)
Alpha 0.003850 ± 0.000005
Standard IEC 60751
Stability 0.010 ohm/year
Sensing Element length 15 mm
Metal Sheath
4 Wires Type
Supplied with 2 metre cable and connectors for TC version measurement input

Part Number	Range	Diameter	Immersion Depth	Application
SRS-PRT-03-A168B	–40 to 250 Deg	3 mm	168 mm angled	PLB 150, PLB 250
SRS-PRT-45-A195B	–40 to 650 Deg C	4.5 mm	195 mm angled	PTB 600
SRS-PRT-45-S480B	–40 to 650 Deg C	4.5 mm	480 mm Straight	Working Standard

PLB STANDARD DELIVERY

PLB 150 and PLB 250 are supplied as standard with the full list of accessories

PLB Portable Liquid Bath
500 CC of Silicon Oil 47V10 (PLB 150)
500 CC of Silicon Oil 47V50 (PLB250)
Closing Lead (PLB-ACC-03)
Fluid Empty System (PLB-ACC-04)
Thermometer Support (PLB-ACC-05)
Power Lead
Fuse Kit
Temperature switches test leads
Traceable calibration certificate
Instruction Manual
Soft case with pocket and shoulder strap
RS232 Cable
EIUK- CAL Software Package

SOFT CASE STANDARD DELIVERY

Robust soft case for transport with pockets for accessories and shoulder strap for easy transport- The case has 4 aluminium protective feets

THERMOMETERS SUPPORT (PLB-ACC-05)

Hold Thermometer and Reference sensor in position while calibrating

Part Number				Description
				Model
PLB 150				PLB 150 Portable liquid Bath , - 12 to 140 C
PLB 250				PLB 250 Portable liquid Bath , - T amb to 250 C
				version
	TS			Source Version without input
	TC			Calibrator Version include Reference sensor input, sensor under test input
				Power Supply
		115		115 V 50/60 Hz
		230		230 Vac 50/60 Hz
				Main Power Cable
			EU	Europe, 230
			UK	UK 230
			US/JP	USA/JP 110/115
PLB200	TC	230	UK	Example: PLB 250 TC version with 230 VAC, UK power lead

HIGH ACCURACY OPTION (TC VERSION ONLY)

Part Number	Description
PLB-TC-OPT-01	SRS-PRT-03-A168B reference sensor and special UKAS calibration for linearization and probe matching- Range -12 to 250 Deg C

ISOQAR   UKAS
ISO 9001