



E Instruments International 2013 Calibrator Catalog

www.E-Inst.com

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MC2100 Multifunction Process Calibrator

- High Accuracy: Up to 0.015% of Reading
- Simultaneous Dual-channel Display
- Measure, Source & Simulate: Voltage, Current & Resistance
- Measure, Source & Simulate: Thermocouples & RTDs
- 2 Internal 24V Isolated Loop Supplies
- Easy Operation & Configuration with Self-Explanatory Menus
- Traceable Calibration Certificate Included



OPTION: External Pressure Sensors Available

MC 2100 SPECIFICATIONS

Measure or Source	Range	Resolution	Accuracy
Voltage (mV)	-21 to 210mV	1μV	±0.015% rdg + 3μV
Voltage (mV)	-210 to 2100mV	10μV	±0.015% rdg + 10 μV
Voltage (V)	-2 to 20V	100μV	±0.015% rdg + 0.1mV
mA (In) Passive Loop	0 to 21mA	0.1μA	±0.015% rdg + 0.4μA
mA (In) Active Loop	0 to 51mA	0.1μA	±0.015% rdg + 0.4μA
mA (Out)	0 to 51mA	0.1μA	±0.015% rdg + 0.4μA
Loop Supply	24V DC	±10%	
TC J	-210 to 1200°C	0.01°C	±0.015% rdg + 0.1°C
TC K	-270 to 1372°C	0.01°C	±0.015% rdg + 0.1°C
TC N	-270 to 1300°C	0.01°C	±0.02% rdg + 0.1°C
TC E	-270 to 1000°C	0.01°C	±0.02% rdg + 0.1°C
TC T	-270 to 400°C	0.01°C	±0.02% rdg + 0.1°C
TC R	-50 to 1768°C	0.1°C	±0.02% rdg + 0.2°C
TC S	-50 to 1768°C	0.1°C	±0.02% rdg + 0.2°C
TC B	0 to 1820°C	0.1°C	±0.02% rdg + 0.3°C
Pt100 IEC	-200 to 850°C	0.01°C	±0.02% rdg + 0.05°C
Pt100 JIS	-200 to 600°C	0.01°C	±0.02% rdg + 0.05°C
Pt100 SAMA	-200 to 600°C	0.01°C	±0.02% rdg + 0.05°C
Pt100 IEC	-200 to 850°C	0.01°C	±0.02% rdg + 0.05°C
Cu10	-100 to 260°C	0.1°C	±0.02% rdg + 0.4°C
Ni120	-80 to 260°C	0.01°C	±0.02% rdg + 0.05°C
Ω (In)	0 to 4000Ω	10mΩ	±0.02% rdg + 120mΩ
Ω (Out)	0 to 500Ω	1mΩ	±0.02% rdg + 20mΩ
Ω (Out)	0 to 4000Ω	10mΩ	±0.02% rdg + 200mΩ

Ordering Information

Model No.	Description
MC2100	MC2100 Multifunction Calibrator
MC2100-P	MC2100-P Multifunction Calibrator with 1 Pressure Sensor*
MC2100-P2	MC2100-P Multifunction Calibrator with 2 Pressure Sensors*

* Specify Pressure Ranges Required
(Up to 700 Bar/10,000 PSI)

All MC2100 Include: Traceable Calibration Certificate, Operation Manual, Vinyl Carrying Case, AC Charger



MultiCal 2500 Secondary Standard Precision Calibrator

- Powerful, Precise Laboratory Calibrator with Unmatched Versatility, Performance, and Intuitive User Interface
- Source/Read 13 type of Thermocouples, 9 types of RTDs, Voltage, Current, and Pressure (Read Only)
- Superior Accuracy:
to $\pm 0.0025\%$ of rdg.
- Nine (9) Set points for Each Output Range and Type
- RS232, USB, & IEEE-488 remote control
- Traceable Calibration Certificate Included



MultiCal 2500 Precision Laboratory Calibrator Ordering Information

Part Number	Ordering Information
MC2500	MultiCal 2500 Precision Calibrator User Manual, AC Line Cord, Thermocouple Jumper Shorter, NIST Calibration Certificate
	1 - 120V AC Unit with US Type Plug 2 - 230V AC Unit with European Plug

Mechanical

Dimensions 5"h x 19"w x 11"d
(17.7 cm x 48.26 cm x 27.96 cm)
Weight 10.5 lbs. (4.8 kg)
Display (2) Large character 16 by
2 line alphanumeric backlit LCDs



Optional Accessories

EIBP-1 High Accuracy RTD Probe (with data)
BPPA-100-1 Pressure Module Adapter
EPTL-1 Low EMF Beryllium Copper Test Leads
JKTE-1 Thermocouple Lead Kit
R/SNB-1 Thermocouple Lead Kit

BPPA-100-1 Pressure
Module Adapter



RS232, USB,
& IEEE-488
remote control



* Specifications subject to change *

MultiCal 2500 Secondary Standard Precision Calibrator

MultiCal 2500 Precision Calibrator Specifications

Output Voltage

Range

0 to 100.000 mV
0 to 1.00000 V
0 to 10.0000 V
0 to 100.000 V

Resolution

0 to 100 mV Range 1 μ V
0 to 1 V Range 10 μ V
0 to 10 V Range 100 μ V
0 to 100 V Range 1 mV

Accuracy (% of reading)

0 to 100 V Range $\pm 0.003\%$ (30ppm) $\pm 3 \mu$ V
0 to 1 V Range $\pm 0.003\%$ (30ppm) $\pm 10 \mu$ V
0 to 10 V Range $\pm 0.003\%$ (30ppm) $\pm 100 \mu$ V
0 to 100 V Range $\pm 0.003\%$ (30ppm) ± 1 mV

Maximum Burden (~ 1 Ohm output impedance)

0 to 100 mV Range 10 mA
0 to 1 V Range 10 mA
0 to 10 V Range 10 mA
0 to 100 V Range 1 mA

Output Current

Range 0 to 100.000 mA

Resolution 1 μ A

Accuracy (% of reading) $\pm 0.005\% \pm 1$ Count

Maximum Burden 10 V

Thermocouples

Output

Types J, K, T, E, R, S, N, B, L, U, C, BP, XK
Range mV

Resolution 0.1 $^{\circ}$ C/ $^{\circ}$ F

Accuracy 0.14 $^{\circ}$ C; Type J, typical

Input

Types J, K, T, E, R, S, N, B, L, U, C, BP, XK

Range mV

Resolution 0.01 $^{\circ}$ C/ $^{\circ}$ F

Accuracy 0.14 $^{\circ}$ C; Type J, typical

RTD

Output

Range Pt385 (100, 200, 500, 1000),
Pt392, Pt3916 (JIS), Ni120,
Cu 10, YSI400

Resolution 0.01 $^{\circ}$ C/ $^{\circ}$ F; Pt385-100, typical

Accuracy ± 0.05 $^{\circ}$ C; Pt385-100, typical

Input (All RTD inputs are 4 wire)

Range Pt385 (100, 200, 500, 1000),
Pt392, PT3916 (JIS), Ni120,
Cu10, YSI400, 25 Ohm SPRT

Resolution 0.001 $^{\circ}$ C/ $^{\circ}$ F; Pt385-100, typical

Accuracy ± 0.02 $^{\circ}$ C; Pt385-100, typical

Ohms

Output

Range 5 to 4000.0 Ω

Resolution 5 to 400.00 Ω 0.001 Ω

5 to 4000.0 Ω 0.01 Ω

Accuracy

5 to 400.00 Ω ± 0.05 Ω

5 to 4000.0 Ω ± 0.3 Ω

Input (4 wire connection)

Range 0 to 4000.00 Ω

Resolution 0 to 400.00 Ω 0.001 Ω

0 to 4000.0 Ω 0.01 Ω

Accuracy

0 to 400.00 Ω 40 PPM ± 0.002 Ω

0 to 4000.00 Ω 40 PPM ± 0.02 Ω

Pressure

Range 0 to 1 inch H₂O; to 10,000 psi

Compatibility with 29 pressure modules using
the BPPA-100-1 pressure adapter and all Fluke
700 and Mensor 6100 Series

Pressure Modules

Isolated Measurement Channel

Range Accuracy

0-10.0000V $\pm 0.005\% \pm 0.2$ mV

0-100.000V $\pm 0.005\% \pm 2.0$ mV

0-52.0000mA $\pm 0.01\% \pm 1$ μ A

Loop power: 24 V $\pm 10\%$

HART™ resistor: 250 Ω $\pm 3\%$

Maximum current: 24 mA

Stability

Warm-up Time 30 minutes to rated accuracy

Temp Co. ($\sim 18^{\circ}$ C/ $>28^{\circ}$ C) 10% of accuracy spec/ $^{\circ}$ C

Environmental

Operating Temperature 0 $^{\circ}$ C to +50 $^{\circ}$ C

Storage Temperature -20 $^{\circ}$ C to +70 $^{\circ}$ C

Humidity

Operating <80% to 30 $^{\circ}$ C

<70% to 40 $^{\circ}$ C

<40% to 50 $^{\circ}$ C

Storage <95%, non-condensing

Power Requirements

Voltage Range 90 to 240 VAC

<15 VA



* Specifications subject to change *

P100 Process Pressure Calibrator

- Accuracy: $\pm 0.20\%$ of Full Scale
or: $\pm 0.05\%$ of Full Scale
- Pneumatic Ranges: Vacuum to
2, 10, 25, 35, & 40 bar
- Hydraulic Ranges: up to 1,000 Bar
- Fine Adjustment Vernier
- Ideal for Pneumatic Vacuum & Pressure Generation
- Peak Function (Positive & Negative) and
Programmable Digital Filter
- LCD Display with Selectable Engineering Pressure
Units in: Bar, Mpa, Kpa, Psi, & mbar
- Traceable Calibration Certificate Included

P100 Calibrator



*P100 Calibrator with
Hand Held Pump*



P100 Gauge & Hand Held Pump Specifications

Range:	Up to 1,000 Bar	* Specifications subject to change *
Type:	Easy grip handle, spring loaded, scissor action	
Accuracy:	$\pm 0.20\%$ of Full Scale or $\pm 0.05\%$ of Full Scale	
Medium:	Air	
Stroke Adjustmt:	Spring loaded lock nut	
Connection:	3/8" BSP (F) to fit Master Indicator	
Test Instr. Port:	Hose with 1/4" BSP (F)	
Peak function:	Positive, Negative, & Programable Digital Filter	
Battery:	Internal batteries 1 year autonomy without recharge	

Model No. Ordering Information

3214A	P100 $\pm 0.20\%$ F.S. Process Pressure Calibrator
3214B	P100 $\pm 0.05\%$ F.S. Process Pressure Calibrator

***Add required pump to above part number:**

- 1 P100 Gauge & PHP 1 bar (15 PSI) pump
- 2 P100 Gauge & PHP 2 bar (30 PSI) pump
- 3 P100 Gauge & PHP 10 bar (150 PSI) pump
- 4 P100 Gauge & PHP 25 bar (375 PSI) pump
- 5 P100 Gauge & PHP 35 bar (525 PSI) pump
- 6 P100 Gauge & PHP 40 bar (600 PSI) pump
- 7 P100 Gauge & HHP 200 bar (3,000 PSI) pump
- 8 P100 Gauge & HHP 350 bar (5,250 PSI) pump
- 9 P100 Gauge & HHP 700 bar (10,500 PSI) pump
- 10 P100 Gauge & HHP 1,000 bar (15,000 PSI) pump

P100 & Hand Held Pump Accessories

- HH-700B-1 - 700 Bar High Pressure Hydraulic Hose
- HH-1000B-1 - 1000 Bar High Pressure Hydraulic Hose

Hand Held Pump Adaptors

NPT-1 - Set of 4 NPT adaptors

- 1/4" BSP (M) to 1/8" NPT (F)
- 1/4" BSP (M) to 3/8" NPT (F)
- 1/4" BSP (M) to 1/2" NPT (F)
- 1/4" BSP (M) to 1/4" NPT (F)

BSP-1 - Set of 4 BSP adaptors

- 1/4" BSP (M) to 1/8" BSP parallel female
- 1/4" BSP (M) to 3/8" BSP parallel female
- 1/4" BSP (M) to 1/2" BSP parallel female
- 3/8" BSP (F) to 1/4" BSP (F)

BSP-18F-M20F - 1/8" BSP (F) to M20x1.5 (F)

BSP-38F-14F - 3/8" BSP (F) parallel x 1/4" (F)

BSP-TA14M-4F - Thread Adapter: 1/4" BSP (M) to 4mm (F)



PPC-P Portable Pressure (Pneumatic) Calibrator

- Designed to verify and calibrate low pressure instrumentation in the field or in the lab.
- Pneumatic Ranges:
Vacuum to 2 Bar (to 30 PSI)
Vacuum to 7 Bar (to 100 PSI)
Vacuum to 10 Bar (to 150 PSI)
Vacuum to 20 Bar (to 300 PSI)
- Overall Accuracy:
 $\pm 0.05\%$ F.S. or $\pm 0.025\%$ F.S.
- DC Current Measurement
Active Loop: 50mA &
Passive Loop: 25mA
- Included with a Built-In Hand Pump
- Traceable Calibration Certificate Included



PPC-P Pressure Calibrator Specifications

Overall Accuracy:	$\pm 0.05\%$ F.S. or $\pm 0.025\%$ F.S.
Pneumatic Range:	Vacuum to 2 Bar (to 30 PSI) Vacuum to 7 Bar (to 100 PSI) Vacuum to 10 Bar (to 150 PSI) Vacuum to 20 Bar (to 300 PSI)
Resolution:	Minimum 5 digit / Graphic Display
mA Input:	Active Loop: 50mA / Passive Loop: 25mA
Voltage Input:	0 to 30 VDC
Resolution (mA/V):	0.01 mA/V
Engineering Units:	Mpa, atm, Bar, Kg/CM ² , PSI inHg, Pa, kPa, ftH ₂ O, mmHg, mBar, CmH ₂ O, mmH ₂ O,
Power Supply:	Rechargeable Battery unit & Low Battery Indicator on unit
Dimensions (WxHxD)	13.3 x 11.6 x 6.0 in (339 x 295 x 152mm)
Weight:	12.1 lbs (5.5Kg)
Warranty:	1 Year Warranty



Model No. Ordering Information

- PPC-P2** - 2 Bar Pneumatic Compact Pressure Calibrator
PPC-P7 - 7 Bar Pneumatic Compact Pressure Calibrator
PPC-P10 - 10 Bar Pneumatic Compact Pressure Calibrator
PPC-P20 - 20 Bar Pneumatic Compact Pressure Calibrator
PPC-P - Accuracy $\pm 0.05\%$ F.S.
PPC-P+ - Accuracy $\pm 0.025\%$ F.S.

Product Includes:
PPC-P Compact Pressure unit with built-in Indicator, Pressure/Vacuum Pump & Vernier / Release Valve), Manual, a Set of BSP or NPT Adaptors & Test Leads, Traceable Calibration Certificate

PPC-P - Accessories

PPC-P-H - Hose to match gauges

NPT-1 - Set of 4 NPT adaptors
1/4" BSP (M) to 1/8" NPT (F)
1/4" BSP (M) to 3/8" NPT (F)
1/4" BSP (M) to 1/2" NPT (F)
1/4" BSP (M) to 1/4" NPT (F)

BSP-1 - Set of 4 BSP adaptors
1/4" BSP (M) to 1/8" BSP (F)
1/4" BSP (M) to 3/8" BSP (F)
1/4" BSP (M) to 1/2" BSP (F)
3/8" BSP (F) to 1/4" BSP (F)

PPC-H Portable Pressure (Hydraulic) Calibrator

- Designed to Verify and Calibrate High Pressure Instrumentation in the Field or in the Lab
- Hydraulic Ranges:
0 to 200 Bar (to 3,000 PSI)
or
0 to 400 Bar (to 6,000 PSI)
- Overall Accuracy:
 $\pm 0.05\%$ F.S. or $\pm 0.025\%$ F.S.
- DC Current Measurement
Active Loop: 50mA &
Passive Loop: 25mA
- Included with a Built-In Hand Pump
- Traceable Calibration Certificate Included



PPC-H Pressure Calibrator Specifications

Overall Accuracy:	$\pm 0.05\%$ F.S. or $\pm 0.025\%$ F.S.
Hydraulic Range:	0 to 200 Bar (3,000 PSI) or 0 to 400 Bar (6,000 PSI)
Resolution:	Minimum 5 digit / Graphic Display
mA Input:	Active Loop: 50mA / Passive Loop: 25mA
Voltage Input:	0 to 30 VDC
Resolution (mA/V):	0.01 mA/V
Engineering Units:	Mpa, atm, Bar, Kg/CM ² , PSI inHg, Pa, kPa, ftH ₂ O, mmHg, mBar, CmH ₂ O, mmH ₂ O,
Power Supply:	Rechargeable Battery unit & Low Battery Indicator on unit
Dimensions (WxHxD)	13.3 x 11.6 x 6.0 in (339 x 295 x 152mm)
Weight:	18.7 lbs (8.5Kg)
Warranty:	1 Year Warranty



Model No. *Ordering Information*

PPC-H200 - 200 Bar Hydraulic Compact Pressure Calibrator

PPC-H400 - 400 Bar Hydraulic Compact Pressure Calibrator

PPC-H - Accuracy $\pm 0.05\%$ F.S.

PPC-H+ - Accuracy $\pm 0.025\%$ F.S.

Product Includes:

PPC-H Compact Pressure unit with built-in Indicator, Pressure/Vacuum Pump & Vernier / Release Valve), Manual, a Set of BSP or NPT Adaptors & Test Leads, Traceable Calibration Certificate

PPC-H - Accessories

PPC-H-H - Hose to match gauges

NPT-1 - Set of 4 NPT adaptors

1/4" BSP (M) to 1/8" NPT (F)

1/4" BSP (M) to 3/8" NPT (F)

1/4" BSP (M) to 1/2" NPT (F)

1/4" BSP (M) to 1/4" NPT (F)

BSP-1 - Set of 4 BSP adaptors

1/4" BSP (M) to 1/8" BSP (F)

1/4" BSP (M) to 3/8" BSP (F)

1/4" BSP (M) to 1/2" BSP (F)

3/8" BSP (F) to 1/4" BSP (F)

PPC-P/H Dual Pressure (Pneumatic/Hydraulic) Calibrator

- Designed to Verify and Calibrate Both Low or High Pressure Instrumentation in the Field or in the Lab
- Pneumatic Range:
-0.85 to 20 Bar (300 PSI)
Hydraulic Range:
0 to 400 Bar (6,000 PSI)
- DC Current Measurement
Active Loop: 50mA &
Passive Loop: 25mA
- Overall Accuracy:
 $\pm 0.05\%$ F.S. or $\pm 0.025\%$ F.S
- Included with a Built-In Hand Pump
- Traceable Calibration Certificate Included



PPC-P/H Dual Pressure Calibrator Specifications

Overall Accuracy:	$\pm 0.05\%$ F.S. or $\pm 0.025\%$ F.S.
Pneumatic Range:	-0.85 to 20 Bar (300 PSI)
Hydraulic Range:	0 to 400 Bar (6,000 PSI)
Resolution:	Minimum 5 digit / Graphic Display
mA Input:	Active Loop: 50mA / Passive Loop: 25mA
Voltage Input:	0 to 30 VDC
Resolution (mA/V):	0.01 mA/V
Engineering Units:	Mpa, atm, Bar, Kg/CM ² , PSI inHg, Pa, kPa, ftH ₂ O, mmHg, mBar, CmH ₂ O, mmH ₂ O,
Power Supply:	Rechargeable Battery unit & Low Battery Indicator on unit
Dimensions (WxHxD)	16 x 13 x 7 in (406 x 330 x 174mm)
Weight:	21 lbs (9.5Kg)
Warranty:	1 Year Warranty



Model No. Ordering Information

PPC-PH-D and PPC-PH-D+	PPC-P/H Dual unit - Dual Pressure Ranges (with built-in Indicator, Pressure/Vacuum Pump, Hydraulic Pump & Vernier / Release Valves), Manual, a Set of BSP or NPT Adaptors & Test Leads, Calibration Certificate
PPC-PH-D	Accuracy $\pm 0.05\%$ F.S.
PPC-PH-D+	Accuracy $\pm 0.025\%$ F.S.

PPC-P/H Dual - Accessories

PPC-D-H - Hose to match gauges

NPT-1 - Set of 4 NPT adaptors
 1/4" BSP (M) to 1/8" NPT (F)
 1/4" BSP (M) to 3/8" NPT (F)
 1/4" BSP (M) to 1/2" NPT (F)
 1/4" BSP (M) to 1/4" NPT (F)

BSP-1 - Set of 4 BSP adaptors
 1/4" BSP (M) to 1/8" BSP (F)
 1/4" BSP (M) to 3/8" BSP (F)
 1/4" BSP (M) to 1/2" BSP (F)
 3/8" BSP (F) to 1/4" BSP (F)

TCS 140 Dry Block + Liquid Bath Calibrator

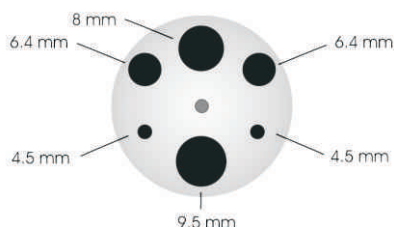
- Ideal for Your Low Temperature Calibration Needs in the Lab or Field
- Range: -50°C from Tamb to 140°C
- Optional Black Body Insert for infrared thermometers
- Resolution 0.1°C/°F
- Dual Display for Set Point & Actual Temperature
- Standard 6 Multi-hole Insert
2 x 4.5, 2 x 6.4, 1 x 8, 1 x 9.5mm
- Traceable Calibration Certificate Included



TCS 140 Dry Block & Liquid Bath Specifications

Range: -50°C (-67°F) from Tamb to 140°C (285°F) * Specifications subject to change *		
Absolute Stability		Dimensions (WxHxD)
Dry Block:	±0.035°C @ 140°C	340 x 300 x 170mm
Liquid Bath:	±0.02°C @ 140°C	13.4" x 11.8" x 6.7"
Radial Uniformity:		Weight:
Dry Block:	±0.02°C @ 140°C	14.0Kg (30.86 lbs)
Liquid Bath:	±0.004°C @ 140°C	
Heating Speed:	-30°C to 140°C in 15 minutes	Measuring Units: °C or °F / ITS90
Cooling Speed:	140°C to 0°C in 15 minutes	Power Consumption: 2500 Watts
Stabilization Time:	10 minutes	
Block Diameter:	35mm	
Block Depth:	160mm	
Well Depth:	157mm	
Multi-hole Insert:	2 x 4.5mm (0.18"), 2 x 6.4mm (0.25"), 1 x 8mm (0.31"), 1 x 9.5mm (0.37")	

Standard insert



Part Number. Ordering Information

- 20-8882-6** TCS 140 standard unit with 6 hole insert, liquid container, vinyl carrying case, manual, & Calibration Certificate
- 1 120V 50/60Hz US Plug
 - 2 230V 50/60Hz with Schuko Plug
 - 3 230V 50/60Hz with UK Plug
 - 4 230V 50/60Hz with European Plug
 - 5 100V 50/60Hz with USA/Japan Plug

Accessories

- 21-0017-6** - Stirred Liquid Bath Container
- 21-2273-0** - TCS 140 Black Body Insert option
- 21-4692-3** - TCS 140 undrilled metal block insert
- 21-8945-8** - Standard TCS140 Insert
- EE180050** - Probe Support Kit
- EE180057** - 500cc silicon oil -35°C to 140°C
- 2160** - TC S 1400°C Working Reference Standard Probe
- 2168** - TC K 1100°C Working Reference Standard Probe
- 2184** - Pt100 Class A Working Reference Standard Probe



TCS 650/1200 Dry Block Temperature Calibrators

- Ideal for Your Medium & High Temperature Calibration Needs in the Lab or Field
- TCS650 Range: 35°C to 650°C (95°F to 1200°F)
TCS1200 Range: 300°C to 1200°C (572°F to 2190°F)
- Optional Black Body Insert for infrared thermometers
- Resolution 0.1°C/°F
- Dual Display for Set Point & Actual Temperature
- Traceable Calibration Certificate Included



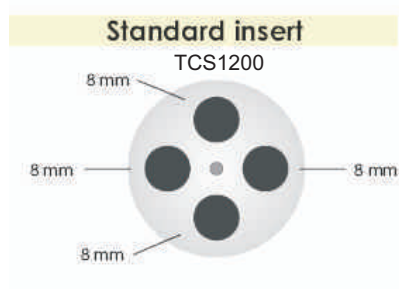
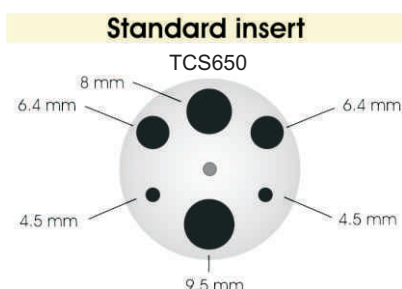
TCS 650 / TCS 1200 Dry Block Specifications		
Range:	TCS650 from 35°C to 650°C	TCS1200 from 300°C to 1200°C
Absolute Stability:	TCS650: ±0.02°C @ 650°C	TCS1200: ±0.15°C @1100°C
Radial Uniformity:	TCS650: ±0.08°C @ 650°C	TCS1200: ±0.2°C @1100°C
Heating Speed:	TCS650: Min. to Max. in 30 min	TCS1200: Min. to Max. in 30 min
Cooling Speed:	TCS650: 600°C-150°C in 30 min	TCS1200: 1100°C-800°C in 50 min
Stabilization Time:	TCS650: 20 minutes	TCS1200: 25 minutes
Weight:	TCS650: 11.0Kg (24.25 lbs)	TCS1200: 9.7Kg (21.3 lbs)
Dimensions (WxHxD):	TCS650: 300mm x 340mm x 170mm	TCS1200: 300mm x 340mm x 170mm
Measuring Units:	°C or °F / ITS90	°C or °F / ITS90
Power Consumption:	TCS650: 900 Watts	TCS1200: 1600 Watts
Block Diameter:	TCS650: 35mm	TCS1200: 36mm
Block Depth:	TCS650: 148mm	TCS1200: 130mm
Well Depth:	TCS650: 140mm	TCS1200: 80mm
Multi-hole Insert:	TCS650: 2 x 4.5mm (0.18"), 2 x 6.4mm (0.25"),	TCS1200: 4 x 8.0mm (0.31")

Part Number **Ordering Information**

20-8177-5	TCS 650 standard unit with 6 hole insert, vinyl carrying case, manual, & Calibration Certificate
20-8176-7	TCS 1200 standard unit with 4 hole insert, vinyl carrying case, manual, & Calibration Certificate
	-1 120V 50/60Hz US Plug
	-2 230V 50/60Hz with Schuko Plug
	-3 230V 50/60Hz with UK Plug
	-4 230V 50/60Hz with European Plug
	-5 100V 50/60Hz with USA/Japan Plug

Accessories

21-4693-1	- TCS 650 undrilled metal block insert
21-2732-0	- TCS 650 Standard Insert
21-5251-6	- TCS 650 Black Body Insert option
21-4694-0	- TCS 1200 undrilled metal block insert
21-8164-3	- TCS 1200 standard metal block insert
21-5253-2	- TCS 1200 Black Body Insert option
EE180050	- Probe Support Kit
2160	- TC S 1400°C Working Reference Standard Probe
2168	- TC K 1100°C Working Reference Standard Probe
2184	- Pt100 Class A Working Reference Standard Probe





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