



PTC Tempo Thermal Cyclers

A Dependable Experience on an Intuitive Platform

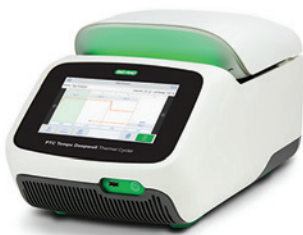
- Consistent performance — with thermal accuracy and uniformity you can trust
- Intuitive experience — via a modern user interface with enhanced touch sensitivity, perfect for training labs and scientists transitioning from other platforms
- Automation compatibility — enabled by the motorized lid
- Contemporary connectivity — WiFi enabled for remote protocol creation via the BR.io cloud platform
- Enhanced security — ideal for regulated environments when using secure user mode

For the molecular laboratory engaging in translational research testing, Bio-Rad offers the PTC Tempo family of conventional thermal cyclers, delivering workflow flexibility and enabling today's molecular laboratory to meet rapidly changing demands in molecular testing by partnering with a recognized industry expert in genomic testing tools.

Unlike other conventional PCR thermal cyclers, a PTC Tempo Thermal Cycler can be used as a stand-alone system or integrated into a fully automated workflow that maximizes cost effectiveness.

General Specifications

Sample block type	Fixed
Dimensions (W x D x H)	28 x 50 x 26 cm (11 x 20 x 10 in.)
Power	100–240 V, 50/60 Hz, 850 W max
Electrical approvals	IEC, CE
Memory	4.6 GB; 100,000 files, which include protocols and run reports
Noise level	50–70 dB at steady state
Touch-screen display	8 in. LCD
Programming options	Step-based graphical and automatic
Security features for regulated environments	Password protection and secure user mode
Reporting	Exportable run logs and system logs
Temperature control modes	Calculated and block
Onboard operating system	Linux
Communications	WiFi, BR.io cloud platform, USB-A 2.0, Ethernet, USB barcode scanner
Heating and cooling method	Peltier
Lid heating	30–110°C
Temperature range	4–100°C
Thermal accuracy	±0.2°C of programmed target at 90°C
Thermal uniformity	±0.4°C well-to-well within 10 sec of arrival at 90°C



System-Specific Specifications

	96-Well	Deepwell	48/48-Well	384-Well
Lid type	Automated	Automated	Nonautomated	Automated
Weight	15 kg (33 lb)	15 kg (33 lb)	14 kg (31 lb)	15 kg (33 lb)
Sample capacity	96 x 0.2 ml tubes or 1 x 96-well plate	96 x 0.2 ml tubes, 48 x 0.5 ml tubes, or 1 x 96-well plate	2 x 48 x 0.2 ml tubes or 2 x 48-well plates	1 x 384-well plate
Sample volume	1–50 µl (10–50 µl recommended)	1–125 µl (10–125 µl recommended)	1–50 µl (10–50 µl recommended)	1–30 µl (3–20 µl recommended)
Maximum ramp rate	5°C/sec	2.5°C/sec	4°C/sec	2.5°C/sec
Average ramp rate	3.3°C/sec	2°C/sec	3°C/sec	2°C/sec
Gradient				
Operational range	30–100°C	30–100°C	30–100°C	30–100°C
Programmable span	8 rows, 1–24°C	8 rows, 1–24°C	8 rows, 1–24°C	16 rows, 1–24°C

Ordering Information

Catalog #	Description	Catalog #	Description
Instruments			
12015382	PTC Tempo 96 Thermal Cycler	12001925	ddPCR™ 96-Well Plates, semi-skirted, clear/clear, 25
12015392	PTC Tempo Deepwell Thermal Cycler	MSA5001	Microseal™ 'A' PCR Plate and PCR Tube Sealing Film, nonadhesive sealing film, 50
12015309	PTC Tempo 48/48 Thermal Cycler	MSB1001	Microseal 'B' PCR Plate Sealing Film, adhesive, optical, 100
12015394	PTC Tempo 384 Thermal Cycler	MSC1001	Microseal 'C' PCR Plate Sealing Film, adhesive, optical, 100
1814000	PX1 PCR Plate Sealer	MSF1001	Microseal 'F' PCR Plate Seal, foil, pierceable, 100
Accessories			
12018650	PTC Tempo Thermal Cycler WiFi Adapter, U.S. only	1814030	PCR Plate Heat Seal, clear, optical, 100
12018509	PTC Tempo Thermal Cycler WiFi Adapter, global	1814040	PCR Plate Heat Seal, foil, pierceable, 100
1849000	Tube Frame for 0.2 ml Tubes, for use with 48/48- and 96-well reaction modules	1814045	PCR Plate Heat Seal, foil, peelable, 100
1849001	Tube Frame for 0.2 ml Tubes, for use with 96–deep well and deepwell reaction modules	Agaroses	
12020274	Tube Frame for 0.5 ml Tubes, for use with 96–deep well and deepwell reaction modules	1613102	Certified Molecular Biology Agarose, 500 g
12014294	Plate Lifter for 384-Well Reaction Module	1613107	Certified Low Range Ultra Agarose, 125 g
12019776	PTC Tempo Thermal Cycler API, 1 license	1613112	Certified Low Melt Agarose, 125 g, for DNA fragments ≥1,000 bp
12013205	Ethernet Cable	1613115	Certified PCR Low Melt Agarose, 500 g, for DNA fragments ≤1,000 bp
Reagents			
1725310	iProof HF Master Mix, 100 x 50 µl reactions, 2.5 ml	1613105	Certified PCR Agarose, 500 g, for DNA fragments ≤1,000 bp
1725320	iProof GC Master Mix, 100 x 50 µl reactions, 2.5 ml	Buffers	
1708870	iTaq DNA Polymerase, 250 U (5 U/µl), 50 µl	1610770	10x TBE (Tris/Boric Acid/EDTA) Buffer, 5 L
1708872	MgCl ₂ Solution for PCR, 50 mM, 1.25 ml	1610733	10x TBE (Tris/Boric Acid/EDTA) Buffer, 1 L
1708874	dNTP Solution Mix, 10 mM, 200 µl	1610773	50x TAE (Tris/Acetic Acid/EDTA) Buffer, 5 L
12012802	Reliance Select cDNA Synthesis Kit, 25 x 20 µl reactions	1610743	50x TAE (Tris/Acetic Acid/EDTA) Buffer, 1 L
1708840	iScript Reverse Transcription Supermix, 25 x 20 µl reactions	1610433	Ethidium Bromide Solution, 10 mg/ml
1725034	iScript gDNA Clear cDNA Synthesis Kit, 25 x 20 µl reactions	1610729	EDTA, 500 g, ≥99% pure
1725037	iScript Advanced cDNA Synthesis Kit, 25 x 20 µl reactions	1610716	Tris, 500 g, ≥99.8% pure
1708896	iScript Select cDNA Synthesis Kit, 25 x 20 µl reactions	Horizontal Electrophoresis	
1708890	iScript cDNA Synthesis Kit, 25 x 20 µl reactions	1704486	Mini-Sub™ Cell GT Horizontal Electrophoresis System
Plastics			
TLS0801	0.2 ml 8-Tube PCR Strips without Caps, low profile, clear, 120	1640300	Mini-Sub Cell GT Horizontal Electrophoresis System and PowerPac Basic Power Supply
TFI0201	0.2 ml PCR Tubes with Flat Caps, high profile, clear, 1,000	1704485	Wide Mini-Sub Cell GT Horizontal Electrophoresis System
TWI0201	0.2 ml PCR Tubes with Domed Caps, high profile, clear, 1,000	1640301	Wide Mini-Sub Cell GT Horizontal Electrophoresis System and PowerPac Basic Power Supply
TBS0201	0.2 ml 8-Tube PCR Strips without Caps, high profile, clear, 125	1704482	Sub-Cell™ GT Horizontal Electrophoresis System
TBC0802	0.2 ml 8-Tube PCR Strips and Domed Cap Strips, high profile, clear	1640302	Sub-Cell GT Horizontal Electrophoresis System and PowerPac Basic Power Supply
TCS0803	0.2 ml Flat PCR Tube 8-Cap Strips, optical, ultraclear	Rulers	
HSP9601	Hard-Shell™ 96-Well PCR Plates, low profile, thin wall, skirted, white/clear, 50	1708351	EZ Load 20 bp Molecular Ruler, 20–1,000 bp, 50 bands
MLL9601	Multiplate 96-Well PCR Plates, low profile, unskirted, clear, 25	1708352	EZ Load 100 bp Molecular Ruler, 100–1,000 bp, 10 bands
HSL9601	Hard-Shell 96-Well PCR Plates, low profile, semi-skirted, clear/clear, 25	1708353	EZ Load 100 bp PCR Molecular Ruler, 100–3,000 bp, 30 bands
HSL9605	Hard-Shell 96-Well PCR Plates, low profile, semi-skirted, clear/white, 25	1708354	EZ Load 500 bp Molecular Ruler, 500–8,000 bp, 16 bands
HSL9905	Hard-Shell 96-Well PCR Plates, low profile, semi-skirted, clear/white, barcoded, 25	1708355	EZ Load 1 kb Molecular Ruler, 1–15 kb, 15 bands
HSS9601	Hard-Shell 96-Well PCR Plates, high profile, semi-skirted, clear/clear, 25	1708200	AmpliSize™ Molecular Ruler, 50–2,000 bp, 10 bands
HSS9901	Hard-Shell 96-Well PCR Plates, high profile, semi-skirted, clear/clear, barcoded, 25	Imaging	
MLP9601	Multiplate 96-Well PCR Plates, high profile, unskirted, clear, 25	12009077	GelDoc Go Gel Imaging System with Image Lab Touch Software, includes UV/Stain-Free Imaging Tray
MLL4801	Multiplate 48-Well PCR Plates, low profile, unskirted, clear, 50	1660531	UView Mini Transilluminator
MLP4801	Multiplate 48-Well PCR Plates, high profile, unskirted, clear, 50	Visit bio-rad.com/PTCTempo for more information.	
HSP3801	Hard-Shell 384-Well PCR Plates, thin wall, skirted, clear/clear, 50	 <p>Bio-Rad PCR reagents and analytical instruments are manufactured under an ISO 13485:2016 certified Quality Management System and are quality control tested to ensure consistent product performance you can trust.</p>	
HSP3901	Hard-Shell 384-Well PCR Plates, thin wall, skirted, clear/clear, barcoded, 50	<p>BIO-RAD, AMPLISIZE, DDPCR, HARD-SHELL, MICROSEAL, MINI-SUB, and SUB-CELL are trademarks of Bio-Rad Laboratories, Inc. in certain jurisdictions. All trademarks used herein are the property of their respective owner. © 2023 Bio-Rad Laboratories, Inc.</p> <p>The Mini-Sub Cell GT, Wide Mini-Sub Cell GT, and Sub-Cell GT Cell Systems and/or their use are covered by the following U.S. patent and/or pending U.S. patent application or their foreign counterparts owned by or under license to Bio-Rad Laboratories, Inc., including, but not limited to, U.S. Patent No. 8,262,889.</p>	



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