

Thermo Scientific Water Purification Systems

Ultrapure Water Systems



Thermo Scientific Barnstead GenPure xCAD ultrapure water purification systems

The Thermo Scientific Barnstead GenPure xCAD systems deliver ultrapure $18.2~M\Omega$.cm water from pretreated feed water for the most demanding and sensitive applications. Applications include molecular biology and microbiology, cell and tissue culture, PCR, DNA sequencing, electrophoresis and analytical chemistry: HPLC, GC, GC-MS, ICP-MS, AA, IC, TOC measurements. The xCAD remote dispenser provides flexibility and control. GenPure systems product water quality exceeds international standards ASTM Type I, ISO 3696 Grade1, ASTM D1193 and CLSI-CLRW.

Product features:

Integrated feed water monitoring: additional measuring cell monitors feed water conductivity. If the quality of the feed water drops below the set value, a fault message is immediately displayed

Online TOC measurement with UV intensity monitoring: Real-time TOC monitoring for continual measurement of organic substances present in the water. Continuous monitoring of UV intensity removes the risk of false TOC values due to diminished UV intensity. Fault message alerts user when the UV lamp intensity is no longer sufficient for accurate TOC measurements

UV Photo-oxidation 185/254 nm: high performance UV assembly reliably reduces the content of microorganisms and their metabolites

Ready-to-use: feed water pressure switch, wall bracket, UV lamp, ultrapure cartridge, sterile filter, all included in one part number

Measurement of conductivity/resistivity: conductivity cells are carefully calibrated prior to each measurement via built-in reference resistance with cell constants at 0.01 cm⁻¹. Temperature measurements are made by a platinum chip sensor with± 0.1°C accuracy **Quick-connect cartridge replacement:** aquastop quick-connect capability enables cartridge replacement within seconds even mid-operation

Exact dosing: Electronic dosing for fully automatic volume control of 0.01-65 L with < 0.5% accuracy

GLP-compliant documentation: real-time clock and code-protected operating system prevents unauthorized changes to system settings. RS-232 interface with adjustable send-interval for safe data transfer of all measured data, faults, date and time to a PC computer or log printer. Digital microprocessor control automatically monitors and stores faults from the last four weeks. USP-compliant conductivity measurement with temperature compensation can be switched on or off.

xCAD remote dispenser: the stand alone ergonomic dispensing arm provides precise volume dosing at the press of a button with a water dispensing action radius of 80 cm. One-of-a-kind design provides access to all system controls at your fingertips. The small



footprint of the bench-top xCAD allows for more bench space while the wall-mount version completely frees up horizontal workspace. Adjustable controller makes handling more practical and provides a clear view of critical settings.

Specifications:

Flow rate, max. Up to 2L/min Operating pressure 2 to 6 bar Temperature $2^{\circ} - 35^{\circ}C$ Conductivity $0.055\mu\text{S/cm}$ Resistance at 25°C $18.2 \text{ M}\Omega.\text{cm}$ Bacterial content <1 cfu/ml

Particles >0.2µM/mL <1

TOC 1-5 ppb UV models (5-10 ppb non-UV models)
Endotoxins < 0.001 cfu/ml UF models (n/a non-UF models)

Electrical Requirements 90-240V/50 Hz

Power Consumption 0.1 kW Feedwater connector R 3/4 inch

Dimensions system WxDxH 372x330x615 mm

Dimensions xCAD dispenser WxDxH 260x530x725 mm, wall mount 260x530x655 mm

Ordering information

System Options		GenPure xCAD	GenPure xCAD UV	GenPure xCAD UF	GenPure xCAD UV/UF	GenPure xCAD UV - TOC	GenPure xCAD UV/UF - TOC
GenPure System All systems include a wall bracket, ultrapure polisher cartridge, sterile 0.2 µm filber, pressure regulator, UV lamp and/or ultrafilter where applicable	with xCAD bench version	50131286	50131254	50131250	50131252	50131296	50131298
	with xCAD wall version	50131300	50131317	50131302	50131315	50131321	50131323
Required Accessories							
Stainless steel DI cartridge, DI 1500 Required only when feed water is pretreated using reverse comosis to meet feed water requirements and prolong cartridge life		02.1500	02.1500	02.1500	02.1500	02.1500	02.1500
Optional Accessories							
Disinfection cartridge		09.2201	09.2201	09.2201	09.2201	09.2201	09.2201
Printer Utilizes RS-232 interface for safe doublesser of all measured values and faults with date and time in compliance with GLP guidelines	110V	AY1137X1	AY1137X1	AY1137X1	AY1137X1	AY1137X1	AY1137X1
	230V	09.2207	09.2207	09.2207	09.2207	09.2207	09.2207
Qualification documentation (IQOQ)		10QD00E5013318	10QD00E5013318	1000000E5013318	1000000E5013318	10QD00E5013318	1000000E5013318
Storage reservoir, 30 L, to feed system Polyethylene tank, opaque to light 23.5 x 14.9 in 1598 x 380 mm), Hx W Wall mount accessory is 06.5015		06.5038	06.5038	06.5038	06.5038	06.5038	06.5038
Storage reservoir, 60 L, to feed system Polyethylene tank, opaque to light 35.9 x 14.9 in (912 x 380 mm), H x W Wall mount accessory is 06.5016		06.5068	06.5068	06.5068	06.5068	06.5068	06.5068
Replacement Consumables							
Ultrapure polisher cartridge		09.2005	09.2005	09.2005	09.2005	09.2005	09.2005
Sterile filter, 0.2 µm		09.1003	09.1003	09.1003	09.1003	09.1003	09.1003
Ultrafilter		n/a	n/a	50133980	50133980	n/a	50133980
UV lamp		n/a	09.2002	n/a	09.2002	09.2002	09.2002
Cleaning solution	Europe/ Asia Pacific	09.2202	09.2202	09.2202	09.2202	09.2202	09.2202
	North America	CMX25	CMX25	CMX25	CMX25	CMX25	CMX25