

# CRYSTAL EX

## FLOW DIAGRAMS

Adrona Crystal EX produces ultrapure and pure water. This multipurpose water purification system is highly appreciated due to the very affordable price.

## ORDERING INFORMATION

Model	Part number
Crystal EX Trace	EX-1001
Crystal EX HPLC	EX-1101
Crystal EX Bio	EX-1201



## DESCRIPTION EX SERIES

	Trace	HPLC	Bio
Water type	<ul style="list-style-type: none"> <li>ultrapure water (Grade 1)</li> <li>pure water (Grade 2)</li> </ul>	<ul style="list-style-type: none"> <li>ultrapure water (Grade 1)</li> <li>pure water (Grade 2)</li> </ul>	<ul style="list-style-type: none"> <li>ultrapure water (Grade 1)</li> <li>pure water (Grade 2)</li> </ul>
Application	<ul style="list-style-type: none"> <li>atomic absorption spectrometry</li> <li>plasma optical emission spectrometry</li> <li>other inorganic trace analysis</li> </ul>	<ul style="list-style-type: none"> <li>chromatography</li> <li>mass spectrometry</li> <li>microbiology</li> <li>molecular biology</li> </ul>	highly sensitive biology applications
Display	Monochrome LCD display		
Conductivity sensor	•	•	•
TOC Monitor	-	-	-
Measurement validation port	-	-	-
Volumetric dispensing	-	-	-
Connection to Flow point	-	-	-
Storage tank	required but not included		
Installation	installable on a laboratory bench		

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## SPECIFICATIONS

	Crystal EX Trace	Crystal EX HPLC	Crystal EX Bio
Grade 1 water resistivity at 25 °C	18.2 MΩ x cm	18.2 MΩ x cm	18.2 MΩ x cm
Grade 1 water conductivity at 25 °C	0.055 µS/cm	0.055 µS/cm	0.055 µS/cm
Grade 2 water resistivity at 25 °C	>10 MΩ x cm	>10 MΩ x cm	>10 MΩ x cm
Grade 2 water conductivity at 25 °C	<0.1 µS/cm	<0.1 µS/cm	<0.1 µS/cm
Total Organic Carbon (TOC) level	<10 ppb	<2 ppb	<2 ppb
RNase	N/A	N/A	<0.01 ng/mL
DNase	N/A	N/A	<4 pg/µL
Bacteria	<0.01 CFU/mL	<0.01 CFU/mL	<0.01 CFU/mL
Endotoxins	<0.15 EU/mL	<0.15 EU/mL	<0.001 EU/mL
Particles >0.22 µm	<1 per mL	<1 per mL	<0.05 per mL
Nominal flow, pure water (to storage tank)	10 L/h	10 L/h	10 L/h
Dispense rate, ultrapure water	<2 L/min	<2 L/min	<2 L/min
Deionization module life (standard module)	1 m <sup>3</sup>	1 m <sup>3</sup>	1 m <sup>3</sup>
Recovery	>30 %	>30 %	>30 %
Dimensions (WxDxH), cm	40x35x55	40x35x55	40x35x55
System weight, kg	17	18	19
Operation weight, kg	24	25	26
Feed water pressure	0.4 – 4 bar	0.4 – 4 bar	0.4 – 4 bar
Feed water conductivity	< 1500 µS/cm	< 1500 µS/cm	< 1500 µS/cm

## CONSUMABLES

Part number	Description	Replacement criteria	Comments
10320	Replacement pre-filter, Crystal EX	Filter life counter is zero or the filter is clogged	
10310	Replacement deionization module	„DI Err” message is shown, or water conductivity is consistently > 0.5 µS/cm	
10030	Polishing module “Polishing+”	Every 1–2 years, depending on operation	
10011	Replacement sterilization UV bulb	When required (on average every 2 years)	„Bio” systems only
10018	Replacement photooxidation UV bulb	2 years on average	„HPLC” and „Bio” systems only
10012	Replacement 0.22 µm dispense microfilter	Every 6–12 months	„Trace” and „HPLC” systems
10120	Replacement ultrafilter	Every 3–6 months	„Bio” systems only

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