

CONTICHROM® CUBE 100 TECHNICAL SPECIFICATIONS

Main system components	<ul style="list-style-type: none"> • 2x dual-head pump combined for single binary linear gradient • 2x dual-head pump with eluent selection valve for up to 8 eluents • 2x external UV sensor, 4 variable wavelengths • 2x conductivity sensor • 2x temperature sensor • 1x pH sensor • 4x multi-position valve (actuated) • 2x drain valve (actuated) • 4x manual drain valve • 4x pressure transducer
Communication and control	<ul style="list-style-type: none"> • 1x operating computer • 1x ChromIQ® operating software
Maximum system pressure	<ul style="list-style-type: none"> • 100 bar (10 MPa, 1450 psi)
System dimensions	<p>Contichrom CUBE, (stacked CUBE and CUBE+ modules):</p> <ul style="list-style-type: none"> • Width: 450 mm • Height: 584 mm • Depth: 456 mm (600 mm incl. dynamic mixing chamber) • Weight: 30 kg (67 lbs, CUBE unit), 17 kg (38 lbs, CUBE+ unit) <p>External UV detectors (2 stacked units):</p> <ul style="list-style-type: none"> • Width: 280 mm • Height: 270 mm • Depth: 463 mm • Weight: 15 kg (33 lbs, 7.5 kg/16.5 lbs each) <p>Complete system incl. fraction collector excl. operating computer:</p> <ul style="list-style-type: none"> • Width: 120 cm
Power specifications	<ul style="list-style-type: none"> • Supply voltage: 100-240 V (AC) • Maximum power: CUBE and CUBE+ unit combined: 170 W External UV detectors: 120 W each • Fuses: CUBE and CUBE+ unit: 2x T2AL250V each External UV detectors: 1x T2.5AH250V each
Pump description	<ul style="list-style-type: none"> • Flow rate: 0.5 – 100 mL/min • Accuracy: Within 2 % above 2.0 mL/min • Precision: 0.5 % relative standard deviation • Pulsation: Within 4 % (50 mL/min, 17 bar/250 psi) • Active seal wash • Wetted materials: PEEK, Synthetic Ruby, Sapphire, Zirconia, UHMWPE, FFKM, PFA, ETFE
UV detector description	<ul style="list-style-type: none"> • Variable wavelength UV detector • Channels: 4 per column position • Wavelength range: 200 – 600 nm • Linear range: 0 – 1000 mAU • Light source: Deuterium lamp • Optical path length: 0.5 mm • Wetted materials: PEEK, Quartz, PTFE, SST
Multiport valve description	<ul style="list-style-type: none"> • Electrical actuation • Wetted materials: PEEK

Conductivity/temperature sensor description	<ul style="list-style-type: none"> • Conductivity 0 – 250 mS/cm, temperature compensated • Temperature sensor • Wetted materials: Titanium, PEEK
pH sensor description	<ul style="list-style-type: none"> • External pH probe with flow cell • pH measurement 1-14 • Pressure rating 7 bars (0.7 MPa, 100 psi) • Wetted materials: PEEK, glass
Flow path materials	<ul style="list-style-type: none"> • Tubing on high pressure side: PEEK, 1/16" OD, 0.04" ID • Tubing on low pressure side: FEP, 1/8" OD, 1/16" ID • Fittings: PEEK (PP + CTFE on buffer selection valves)
Process capabilities	<ul style="list-style-type: none"> • CaptureSMB with AutomAb® dynamic process control • MCSGP with AutoPeak® dynamic process control • N-Rich with AutoPeak® dynamic process control • Single column batch chromatography with linear gradient capability • Dual column batch chromatography with linear gradient capability • Dual column alternating batch chromatography • Integrated batch chromatography with inline dilution in-between the two columns
Fraction collector (optional)	<ul style="list-style-type: none"> • Fraction collector Foxy R1 with integrated diverter valve, holds up to 1 rack • Fraction collector Foxy R2 with integrated diverter valve, holds up to 2 racks • Fraction capacity: All standard formats including 96-well plates, 15 mL and 50 mL tubes
Operation	<ul style="list-style-type: none"> • Cold room (4 °C) compatible • 8 buffer/solvent inlets on isocratic pumps • 1 buffer/solvent inlet per pump on binary gradient pump • Recommended column inner diameter: 0.8 – 5.0 cm
Operating software description	<ul style="list-style-type: none"> • ChromIQ® operating software (in English) • Integrated, intuitive software for operation and evaluation of batch and continuous chromatography • Wizards for batch chromatography, integrated 2-column chromatography, CaptureSMB, MCSGP, N-Rich • AutomAb® dynamic process control for CaptureSMB • AutoPeak® dynamic process control for MCSGP and N-Rich • Run log stores all information for each chromatography run • Easy-to-use graphical user interface for method programming with full access to detailed method program for advanced users • Pause/continue functionality, also for continuous chromatography operations • Data evaluation module • OPC compatible • User management gives high operational and data security