

AZURA P 2.1L Preparative HPLC Pumps

The AZURA preparative HPLC pump P 2.1L covers a wide flow rate range and pressure capabilities. It has been designed for purification of mg and gram samples. The control unit allows intuitive control in stand-alone operation.

The integrated automatic recognition of the pump head with RFID technology allows fast adaptations of the pump for various applications.

Key features:

- Preparative pump offers wide range of flow rates (0.1-1000 ml/min)
- Selection of different pump head materials
- Choice of two LC software platforms
- Improved electronic drive compensation
- Integrated compressibility compensation
- Integrated leak management
- Constant pressure operation mode



Specifications

Solvent delivery	
Pump type	Preparative HPLC pump
Delivery system	double piston pump with Al ₂ O ₃ pistons
Available pump heads	100 ml/min.; 250 ml/min.; 500 ml/min.; 1000 ml/min.;
Pump head materials	stainless steel
Maximum delivery pressure	100 ml/min. head: 40 MPa (400 bar, 5800 psi). 250 ml/min. head: 22.5 MPa (225 bar, 3260 psi) to 100 ml/min. 20 MPa (200 bar, 2900 psi) at 250 ml/min. 500 ml/min. head: 10 MPa (100 bar, 1450 psi). 1000 ml/min. head: 7.5 MPa (75 bar, 1080 psi) to 350 ml/min. 5 MPa (50 bar, 720 psi) at 1000 ml/min.

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Flow rate range	100 ml/min. head: 0.01-100 ml/min 0.2 - 80 ml/min (recommended) 250 ml/min. head: 0.1-250 ml/min 0.5 - 200 ml/min (recommended) 500 ml/min. head: 0.1-500 ml/min 2 - 400 ml/min (recommended) 1000 ml/min. head: 0.1-1000 ml/min 10 - 800 ml/min (recommended)
Flow rate increment	0.01 ml/min
Flow rate accuracy	± 2 %, measured at 5 - 50 % of flow range using ethanol/water 10:90
Flow rate precision	< 0.1 % RSD
Gradient support	isocratic, upgradeable to a binary HPG system with additional pump P 2.1L or to a binary or ternary LPG system
HPG: gradient accuracy	± 2 % (5 - 95 %, measured at 5 - 50 % of flow range, water/caffeine tracer)
HPG: gradient precision	1 % RSD, based on retention time at constant room temperature
LPG: gradient accuracy	± 3 % (5 - 95 %, measured at 5 - 50 % of the flow range, water/caffeine tracer)
LPG: gradient precision	2 % RSD, based on retention time at constant room
System protection	soft start, P _{min} and P _{max} are programmable
Wetted materials	stainless steel, graphite fiber reinforced PTFE, FKM, PEEK, sapphire, aluminum oxide (Al ₂ O ₃)
Communication	
Control	LAN; RS-232; analog and event controlled
Analog inputs	0-10 V
Analog control input	flow rate
Level/event outputs	8 event outputs (TTL, OC, relays)
Programming	19 programs + 9 links (to programs) + 1 wake up program

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Special features	system pump head is detected automatically using radio frequency identification (RFID)
Technical parameters	
Ambient conditions	temperature range: 10–40 °C; 50–104 °F air humidity: below 90 % humidity (non condensing)
Leak sensor	yes
General	
Power supply	voltage range: 100 - 240 V, 50 - 60 Hz
Dimensions	361 x 208.2 x 523 mm (W x H x D)
Weight	19 kg
Optional accessories	ternary low pressure gradient valve block, 10–220 ml/min binary low pressure gradient valve block, 10–800 ml/min pump head heating and cooling device
Technical data are subject to change without notice.	

Product Information

APE20KA	Preparative HPLC pump with 100 ml/min pump head, stainless steel
APE20KB	Preparative HPLC pump with 100 ml/min pump head, titanium
APE20LA	Preparative HPLC pump with 250 ml/min pump head, stainless steel
APE20LC	Preparative HPLC pump with 250 ml/min pump head, titanium
APE20MA	Preparative HPLC pump with 500 ml/min pump head, stainless steel
APE20MC	Preparative HPLC pump with 500 ml/min pump head, titanium
APE20NA	Preparative HPLC pump with 1000 ml/min pump head, stainless steel
APE20NB	Preparative HPLC pump with 1000 ml/min pump head, titanium