

Preparative HPLC pumps

AZURA P 2.1L

Preparative HPLC pump

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.



Solvent delivery

Pump type	preparative HPLC pump
Delivery system	double piston pump with Al ₂ O ₃ pistons
Pump head	100 ml / 250 ml / 500 ml / 1000 ml
Pump head materials	stainless steel /titanium
Maximum delivery pressure	for 100 ml pump head: 40 MPa (400 bar, 5800 psi); for 250 ml pump head: 22,5 MPa (225 bar, 3260 psi) up to 100 ml/min, 20 MPa (200 bar, 2900 psi) up to 250 ml/min; for 500 ml pump head: 10 MPa (100 bar, 1450 psi); for 1000 ml pump head: 7.5 MPa (75 bar, 1080 psi) up to 350 ml/min, 5 MPa (50 bar, 720 psi) up to 1000 ml/min
Flow rate range	0.01 - 100 ml/min / 0.01 - 250 ml/min / 0.01 - 500 ml/min / 0.1 - 1000 ml/min
Flow rate increment	0.01 ml/min (0.1 ml/min for 1000 ml pump head)
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, Pmin and Pmax are programmable
Wetted materials	stainless steel, graphite fiber reinforced PTFE, FKM, PEEK, sapphire, aluminum oxide (Al ₂ O ₃), stainless steel

Communication

Control	LAN; 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
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

Ordering details:

APE20KA	AZURA P 2.1L Preparative HPLC pump with 100 ml/min pump head, stainless steel
APE20LA	AZURA P 2.1L Preparative HPLC pump with 250 ml/min pump head, stainless steel
APE20MA	AZURA P 2.1L Preparative HPLC pump with 500 ml/min pump head, stainless steel
APE20NA	AZURA P 2.1L Preparative HPLC pump with 1000 ml/min pump head, stainless steel
APE20KB	AZURA P 2.1L Preparative HPLC pump with 100 ml/min pump head, titanium
APE20LC	AZURA P 2.1L Preparative HPLC pump with 250 ml/min pump head, titanium
APE20MC	AZURA P 2.1L Preparative HPLC pump with 500 ml/min pump head, titanium
APE20NB	AZURA P 2.1L Preparative HPLC pump with 1000 ml/min pump head, titanium
AZZ00AA	AZURA LPG module for pump P 2.1L binary LPG module for flow rates up to 800 ml/min, stainless steel
AZZ00AB	AZURA LPG module for pump P 2.1L ternary LPG module for flow rates up to 220 ml/min, stainless steel