

BETA 50 PLUS

GRADIENT PUMP

With a flow rate **0.1 – 50 ml/min** and a pressure limit of **28 MPa**, this pump is suited for **semi-preparative** applications in liquid chromatography. Due to its **very stable operation** at low flow rates, it is also possible to use the pump for **analytical** applications. It is designed with two pump heads connected in parallel with a piston diameter of 3/8". It has a high-performance processor unit and a **three-way gradient valve**. This allows the pumps to be used for creating a **low-pressure gradient**, i.e., gradual **changes of mobile phase composition** by mixing up to **three liquids** at the pump's entry. It is also possible to predefine the percentage of composition when using the pump in isocratic mode. The gradient course can be defined either through the keypad or uploaded from a computer.



There are new improvements in piston suspension which has new plastic slide bearing and exchange is now easier. Bypass valve has been improved also and is now easier to operate it.

The pump is equipped with **electronic fuses** which stop the flow when preset either maximum or minimum operating pressure limits are exceeded.

When is necessary it is possible to use **back washing of pistons** (e.g. when using buffered mobile phases). Ceramic valves in a PEEK housing facilitate cleaning.

SPECIFICATION

TECHNICAL PARAMETERS:

Flow range	0.1 – 50 ml/min
Method of setting	continuously in 0.1 ml/min steps
Maximum operation pressure:	28 MPa
Accuracy of selected flow (10 ml/min, 12MPa, H ₂ O)	± 2%
Accuracy of pressure measurement	± 2%
Adjustable lower pressure limit	0 – 28 MPa (in 0.1 MPa steps)
Adjustable upper pressure limit	0 – 28 MPa (in 0.1 MPa steps)
Pumping system	two plungers dia. 3/8" in parallel connection, operating in counter strokes
Materials of pump heads	stainless steel
Number of valves	3 (A, B and C)
Maximum number of gradient sections	50
Setting of concentrations of components B and C Component A is automatically adjusted to 100%	0 – 100% in 1% steps
Duration of a single gradient section	1 s to 999 min 59 s
Maximum number of stored files (programs)	100
Data input	16 element keyboard
Display	40 characters in 2 rows
Power supply	100, 115 and 230 V , 50/60 Hz
Power input	90 VA
Dimensions (w x h x d)	220 x 170 x 450 mm
Weight	13 kg