



# Pump LC 110S

- Ultra low pulsation
- High accuracy and reproducibility
- Automated piston wash
- UHPLC capability

### Low pulsation

The LC 110S pump is designed for lowest pulsation in combination with electrochemical detection (ECD). Consequently under optimized conditions no noise is detectable from the piston stroke.

### High accuracy and reproducibility

The dual piston design can deliver flow rates in the low  $\mu\text{L}/\text{min}$  range up to 10 mL/min with highest accuracy and reproducibility. Furthermore, the pump features an automated piston wash to remove traces of salt and other contaminants from the backside of the pistons, increasing the lifetime of the pump seals.

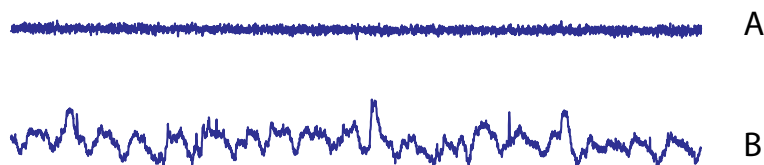
### UHPLC capability

The LC 110S pump head is made of stainless steel. High pressure operation up to 700 bar (10,000 psi), as used in Ultra-High Pressure Liquid Chromatography (UHPLC), is easily supported. High pressure gradient (binary up to quaternary) as well as flow rate programming is supported by the software.

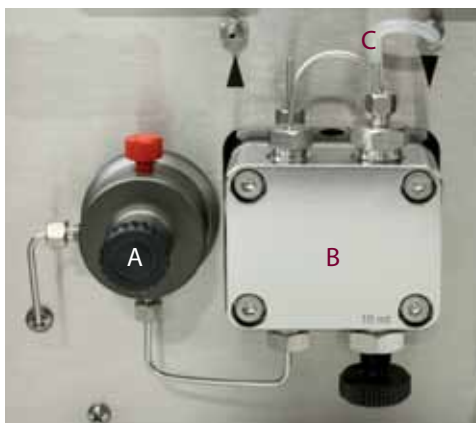


### Baseline noise

Baseline in ECD with LC 110S pump (A) compared to another brand (B).



# Pump LC 110S



Pressure sensor (A), pump head (B) and pump head flushing (C) for automatic piston wash.



## Specifications

- Optimized for LC/ECD
- UHPLC compatible
- Active pulsation dampening
- Device driver in Clarity
- CE, UL/CSA, RoHS compliant
- IQ, PQ and OQ available

Specifications	
Power	Auto-sensing, 90 - 240V, 47 - 63 Hz, 40 Watt
Delivery system	Dual-piston pump with main and auxiliary piston in a serial configuration, automatic piston flush
Operating conditions	4 - 40°C (39.2-104 °F), <90 % RH, non-condensing
Flow rate	0.001 - 9.999 mL/min, max 700 bar (10,000 psi), max rating at ≤ 5 mL/min
Flow rate accuracy	≤1.5 % at 0.2 - 2 mL/min
Flow precision	<0.1% (1 mL/min)
Ripple	Residual pressure pulsation < 3% (water, P = 12 MPa)
Displacement volume	Primary piston 21.4 µL, secondary piston 9.7 µL
Pressure protection	Pmin: 0 (off) - 70 MPa, switch-off in 30 s Pmax: 0.1 - 70 MPa, switch-off time < 1 s
Operating modes	Isocratic, gradient (high pressure, up to 4 eluents)
Instrument control	Numerical keypad & LCD, RS232C & LAN full digital control, remote connector (stop, flow, pressure, error)
GLP features	Report of number of pump cycles, working time, delivered volume and service information
Regulatory	CE, cTÜVus, RoHS compliant
<b>Physical specifications</b>	
Dimensions	44 (D) x 22 (W) x 44 (H) cm = 17.3" (D) x 8.7" (W) x 17.3" (H)
Weight	max 14.6 kg (32 lbs) without flow cell and column

Part no	Description
193.0035S	LC 110S pump

Antec (USA)  
info@myantec.com  
phone (888) 572-0012  
(toll free)

Antec (worldwide)  
info@myantec.com  
phone +31 71 5813333

