ReaXus® LD Class

Dual Piston Pumps for Low Pulsation Requirements

The versatile LD Class consists of dual-headed, positive displacement piston pumps, delivering unmatched performance for analytical, flash, and small-scale preparative chromatography applications. With the patented SSI low

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The pumps are designed for high flow rate accuracy and low pulsation required for Analytical Liquid Chromatography (HPLC). Standard fluid path materials are Stainless Steel and PEEK. Other available features include Hastelloy fluid path with jacketed pump heads for temperature controlled applications. With 12 mL/min, 36 mL/min, and 100 mL/min versions, reaching pressures up to 6,000 psi, these pumps will meet the performance requirements of demanding HPLC needs.

The high performance linear cams, along with automatic pressure compensation, provide precise flow rates for very accurate high pressure and low pressure gradients. Standard features include an integrated Prime-Purge Valve, Pulse Dampener, interactive keypad control, and complete PC control and status through RS-232C, micro-USB, and Ethernet serial communications. The LD Class provides the precise flow and low pulsation for the most challenging separations.

REAXUS

Flow Rate

12 mL/min
36 mL/min
100 mL/min

Pressure

Up To 6,000 psi
(12 or 36 mL/min)

Fluid Path

Stainless Steel, PEEK, or Hastelloy

Control

RS-232, Micro USB, Run/Stop, Ethernet, Analog (0–10V, 4–20mA)

TELEDYNE
Teledyne LABS

LD Class Specifications

	12 mL/min	36 mL/min	100 mL/min
Flow Rate Range	0.001 – 12.000 mL/min	0.01 – 36.00 mL/min	0.1 – 100.0 mL/min
Flow Rate Increment	0.001 mL/min	0.01 mL/min	0.1 mL/min
Flow Rate Accuracy*	±2% (1.000 – 12.000 mL/min; 80:20 Water/IPA; 1,000 psi)	±2% (2.00 – 32.00 mL/min; 80:20 Water/IPA; 1,000 psi)	±2% (0.5 – 100.0 mL/min; 80:20 Water/IPA; 1,000 psi)
Flow Reproducibility	0.5% RSD (1.000 – 12.000 mL/min; 80:20 Water/IPA; 1,000 psi)	0.5% RSD (1.00 – 36.00 mL/min; 80:20 Water/IPA; 1,000 psi)	0.5% RSD (1.0 – 100.0 mL/min; 80:20 Water/IPA; 1,000 psi)
Maximum Delivery Pressure	5,000 psi (PEEK) 6,000 psi (Stainless and Hastelloy)	5,000 psi (PEEK) 6,000 psi (Stainless and Hastelloy)	2,500 psi
Pressure Accuracy	±50 psi		±12.5 psi
Pulsation	≤1% @ 1 mL/min and 80:20 Water/IPA; 1,000 psi	≤0.5% @ 4 mL/min and 80:20 Water/IPA; 1,000 psi	≤2.0% @ 50 mL/min and 80:20 Water/IPA; 250 psi
Piston Displacement	30.0 µL	62.8 µL	251 µL
Piston Wash	Self-flushing pump heads – continuous wash without auxiliary pump		
Wetted Materials	**PEEK pumps may include:** PEEK, Synthetic Ruby, Sapphire, Zirconia, UHMWPE, FFKM, PFA, ETFE **Stainless Steel pumps may include:** 316 Stainless Steel, PEEK, Synthetic Ruby, Sapphire, Zirconia, UHMWPE, PFA, PTFE, ETFE **Hastelloy pumps may include:** Hastelloy C-276, Synthetic Ruby, Sapphire, Zirconia, UHMWPE, FFKM, PFA, PTFE, ETFE		
Dimensions (H x W x D)	6.4" x 9.9" x 17.5" (16.3 x 25.1 x 44.5 cm) (Jacketed Hastelloy heads add 0.7" (1.7 cm) to length of pump)		
Weight	21.4 lbs (9.7 kg)		
Power	100 – 240 VAC (±10%), 50 – 60 Hz, 75 W		
Front Panel	5-digit LED to monitor flow rate, pressure, and indicate parameters and alarms. Run/Stop, Prime, and menu keys, seven status indicators, Increase/Decrease displayed parameters.		
Communication	RS-232, micro-USB, LAN (serial communications) Run/Stop TTL, Analog flow control (0–10 V, 4–20 mA)		
Viscosity**	0.5 –10.8 cP	0.5 –10.8 cP	0.5 –10.8 cP
Liquid Temperature	0 – 82 °C		
Environment	Indoor use only (Pollution degree 2)		
Altitude	Up to 2000 m (6500 ft)		
Ambient Temperature	10 – 30 °C		

**Flow Rate is dependent on solvent selection and operating pressure*
***Range of fluid viscosities where published flow accuracy is maintained*

L-7152 Rev 8.0
10/24