

LS Class

Reciprocating Pump



High Performance Isocratic Pumps

The reliable **LS Class** consists of single-headed, positive displacement piston pumps incorporating advanced cam designs for very low pulsation. With micro-stepping motor technology and a proven single-piston pump mechanism, the LS Class exceeds the performance of more expensive units at a fraction of the cost.

The pumps are ideal for a wide variety of HPLC applications (including Bio-compatible separations), Semi-Prep LC, metering & dispensing, and general laboratory use. Standard fluid path materials are Stainless Steel and PEEK. With 5 mL/min, 10 mL/min and 40 mL/min versions available, and pressure capability up to 6,000 psi, these versatile pumps will meet the most demanding applications.

Features include automatic pressure compensation, Pulse Dampener, integrated Prime-Purge Valve, interactive keypad control, and complete PC control and status through RS-232C, micro-USB, and Ethernet serial communications. The unique LS Class provides the highest performance/cost ratio in a compact package.



Stainless Steel & PEEK Fluid Path Material Available



Drip Tray & Leak Sensor

| FLOW RATE | PRESSURE | FLUID PATH | CONTROL |
|------------------------------------|---|-----------------------------|--|
| 5 mL/min 10 mL/min 40 mL/min | Up to 6,000 psi (5 mL/min or 10 mL/min) | Stainless Steel, or PEEK | RS-232, Micro USB, Ethernet, Run/Stop, Analog (0-10 V, 4-20 mA) |

LS Class Specifications

| | 5 mL/min | 10 mL/min | 40 mL/min |
|----------------------------------|--|---|---|
| Flow Rate Range | 0.001 – 5.000 mL/min | 0.01 – 10.00 mL/min | 0.1 – 40.0 mL/min |
| Flow Rate Increment | 0.001 mL/min | 0.01 mL/min | 0.1 mL/min |
| Flow Rate Accuracy* | ±2% (0.500 – 5.000 mL/min; 80:20 Water/IPA; 1,000 psi) | ±2% (1.00 – 10.00 mL/min; 80:20 Water/IPA; 1,000 psi) | ±2% (4.0 – 40.0 mL/min; 80:20 Water/IPA; 1,000 psi) |
| Flow Reproducibility | 1% RSD (0.500 – 5.000 mL/min; 80:20 Water/IPA; 1,000 psi) | 1% RSD (1.00 – 10.00 mL/min; 80:20 Water/IPA; 1,000 psi) | 1% RSD (0.5 – 40.0 mL/min; 80:20 Water/IPA; 1,000 psi) |
| Maximum Delivery Pressure | 5,000 psi (PEEK) 6,000 psi (Stainless) | 5,000 psi (PEEK) 6,000 psi (Stainless) | 1,500 psi |
| Pressure Accuracy | ±50 psi | | |
| Pulsation | ≤1.5% @ 1 mL/min and 80:20 Water/IPA; 1,000 psi | ≤1.5% @ 1 mL/min and 80:20 Water/IPA; 1,000 psi | ≤2.0% @ 4 mL/min and 80:20 Water/IPA; 1,000 psi |
| Piston Displacement | 25.1 µL | 50.3 µL | 201 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 | | |
| Dimensions (H x W x D) | 6.4" x 7.0" x 16.0" (16.3 x 17.8 x 40.6 cm) | | |
| Weight | 15.5 lbs (7.0 kg) | | |
| Power | 100 – 240 VAC (±10%), 50 – 60 Hz, 45 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 – 3.0 cP | 0.5 – 5.0 cP | 0.5 – 9.4 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 | | |
| Humidity | 20 – 90% relative humidity | | |

*Flow Rate is dependent on solvent selection and operating pressure

**Range of fluid viscosities where published flow accuracy is maintained

**All SSI Pumps carry a
3-Year Warranty**

Teledyne SSI

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Teledyne SSI is continually improving its products and reserves the right to change product specifications, replacement parts, schematics, and instructions without notice.

