

# 100DX

## High Pressure Syringe Pump

The 100DX syringe pump provides precise, predictable flow and pressure control at flow rates from sub-microliter to 50 mL/min. Exceptional low-flow stability at up to 10,000 psi (690 bar) makes this the ideal pump for high pressure applications from deep well core analysis to multi-dimensional capillary LC using small-bore packed capillary columns.

*10,000 psi (690 bar) for high pressure applications.*

The D-series controller has a keypad and LCD, as well as built-in and optional interfaces for computer control and other devices. Programming is easy and flexible, with instant access to menu screens even when the pump is running. This allows you to change operating parameters on the fly. An optional extension cable lets you locate the controller up to 15 meters (50 feet) from the pump.

The 100DX pump module has a single-ratio drive train with auto-lubricating gears for long life and low maintenance. Special fittings are used to prevent leaks and ensure safety at maximum pressure.

Wetted materials are compatible with most aqueous and organic liquids, corrosive solutions, heated fluids, liquefied gases, viscous fluids, or slurries and pastes.



### Applications:

- Precision fluid addition in research and manufacturing processes
- Chemical/Reactant feed in chemical process development, catalyst evaluation, plastic formulation
- Accurate metering of liquefied gases

### Standard Controller Features:

- Operating Modes
  - Constant flow or pressure with up to four pumps
  - Gradient LC programming
  - Flow or pressure programming with a single pump
- External Interface
  - RS232/485 serial interface
  - Analog voltage inputs
  - Digital inputs and output

## 100DX Specifications

<b>Pump Module:</b>	100DX
<b>Capacity:</b>	102.93 mL
<b>Flow Range (mL/min):</b>	0.01 $\mu$ L–50 mL/min*
<b>Flow Accuracy:</b>	+ 0.3% of setpoint, (Maximum .25 $\mu$ L/min seal leakage)
<b>Displacement Resolution:</b>	9.65 nL/stop
<b>Pressure Range:</b>	10–10,000 psi (0.7–689.5 bar)
<b>Standard Pressure Accuracy:</b>	0.5% FS
<b>Optional Pressure Accuracy:</b>	0.1% FS
<b>Wetted Materials (Standard):</b>	Nitronic 50, Graphite filled PTFE, TFE, Hastelloy C-276, Inert Polymers, gold, titanium
<b>Plumbing Ports:</b>	1/8" Valco
<b>Operating Temperature:</b>	5–40 °C Ambient
<b>Power Required:</b>	100 VAC, 117 VAC, 234 VAC, 50/60 Hz (specify)
<b>Dimensions (H x W x D)</b>	101 x 27 x 47 cm (39.8 x 10.7 x 18.4 in)
<b>Weight:</b>	Pump unit— 72.3 lb (32.8 kg), Controller— 6.5 lb (3.0 kg)
<b>Standards Conformity:</b>	EN61326:2013, EN61010-1:2010 Compliant to the European Machinery Directive 2006/42/EC and the European Pressure Equipment Directive (PED) 2014/68/EU

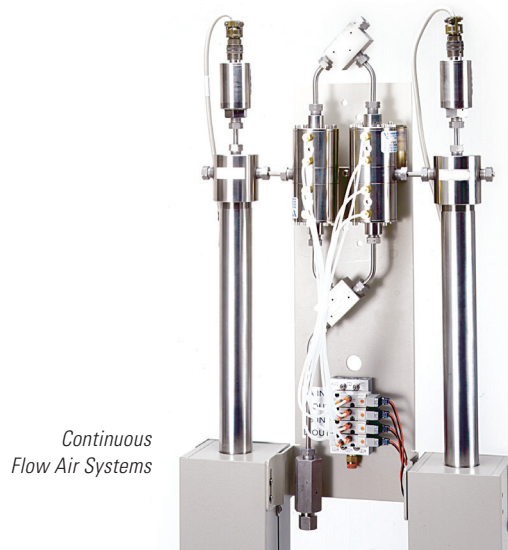
\*Maximum flow rate is dependent upon operating pressure. (See manual for additional information.)

## 100DX Options & Accessories

- Hastelloy 276 cylinder for added corrosion resistance
- Temperature control jacket (i.e. cylinder cooling for filling with liquefied gas)
- High-precision pressure transducers (0.1% linear accuracy)
- Drivers for LabVIEW—National Instruments
- 4-20 mA inputs and outputs for flow rate and pressure control

## Ordering Information

100DX Pump Module, Nitronic .....	68-1240-042
100DX Pump Module, Hastelloy .....	68-1240-610
D Series Controller Basic .....	68-1240-026
Continuous Flow Air Valves.....	60-1247-058
Continuous Flow Electric Valves.....	68-1247-090
Single Air Valve.....	68-1247-088
Single Electric Valve.....	68-1247-110
Manual Refill Kit.....	68-1247-077
Manual Outlet Kit.....	68-1247-078
High Temperature Package.....	68-1247-095
Temperature Control Jacket.....	68-1247-047



Continuous Flow Air Systems

## Teledyne ISCO

P.O. Box 82531, Lincoln, Nebraska, 68501 USA  
Toll-free: (800) 228-4373 • Phone: (402) 464-0231 • Fax: (402) 465-3091

teledyneisco.com



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



L-7129 Rev 3.0  
02/20