

# Isco Syringe Pumps

## 65HP High Pressure Syringe Pump

### **NEW!** **24,000 PSI FOR** **HIGH PRESSURE APPLICATIONS**

The new 65HP syringe pump provides precise, predictable flow and pressure control at very low flow rates from sub-microliter to 25 ml/min. Exceptional low-flow stability at up to 24,000 psi 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.

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 50 feet from the pump.

The 65HP 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**

- High-pressure experiments requiring precision control
- Proteomics research using nanobore capillary packed columns
- Rock core analyses for hydrocarbon recovery studies in deep-well reservoirs
- Reactant feed in chemical process development, catalyst evaluation, plastic formation

### **Standard Controller Features**

#### Operating Modes

- Constant flow or pressure with up to three pumps
- Gradient LC programming
- Flow or pressure programming with a single pump

#### External Interface

- RS232 serial interface
- Analog voltage inputs
- Digital inputs and outputs



## 65HP Specifications

<b>Pump module:</b>	65HP
<b>Capacity:</b>	67.97 ml
<b>Flow range (ml/min):</b>	0.00001 – 25 ml/min
<b>Flow accuracy:</b>	± 0.3% of setpoint, (Maximum 0.25 µl/min seal leakage)
<b>Displacement resolution:</b>	2.5 nl/step
<b>Motor stability:</b>	± 0.001% per year
<b>Pressure range:</b>	0.7 - 1,654.74 bar (10 - 24,000 psi)
<b>Standard pressure accuracy:</b>	0.1% FS
<b>Wetted materials (standard):</b>	Nitronic 50, Graphite filled PTFE, TFE, Hastelloy C-276, inert polymers
<b>Plumbing ports:</b>	1/4" Autoclave Engineers, type F250C
<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>	103cm x 27cm x 45cm (40.6" x 10.7" x 17.9")
<b>Weight:</b>	Pump unit – 33.2 kg, Controller – 2.96 kg
<b>Standards conformity:</b>	EN1010-1, EN61326:1998, UL6101A-1, CSA1010

Isco is continually improving its products and reserves the right to change specifications without notice.

## 65HP Options & Accessories

- Temperature control jacket (i.e. cylinder cooling for filling with liquefied gas)
- Drivers for LabVIEW - National Instruments
- 4-20 mA input for flow rate and pressure control
- Analog voltage output for monitoring flow rate and volume
- 4-20 mA output for monitoring flow rate, pressure, and volume



## 65HP Ordering Information

65HP Pump Module (only) .....	60-5364-184
65HP Syringe Pump (includes controller) .....	60-5364-185



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